Paper
TRADE JOURNAL

SEPT. 28, 1951

HOW OPERATING CONDITIONS AFFECT THE LIFE OF PAPER MACHINE FELTS
. . . Page 21

ENGINEERS WAKE UP!
. . . Page 22

For

SWENSON LIME MUD FILTER

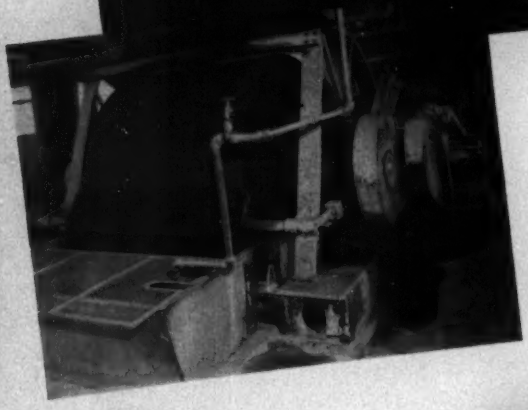

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*Illustration from the Bettmann Archive*

# Paperboard Salesman— Model 1810

The French, mindful of their finery, were the first to fashion sturdy boxes of paperboard for ladies' and gentlemen's hats. Built up by hand from multiple layers of paper, the board was shaped and moulded into boxes, some of them finished with a plain glazed surface, some with decorations. Then the salesman with his loaded display of paperboard boxes would call his wares through the streets of Paris.

Hat boxes, not much changed in design after 140 years, are still widely used for millinery and men's hats. But the once precious paperboard, now produced by modern high-speed methods, low in cost and plentiful, today protects just about every commodity used by business and the home. For packaging, for shipping, for sanitary protection, for display, for convenience, paperboard cartons and containers are the indispensable carriers of modern merchandise. No wonder paperboard accounts for nearly one-half the total production of the American pulp and paper industry.

*The dramatic story of paper is told in the sound-and-color film, "Paper— Pacemaker of Progress," and in a book under the same title. Both are presented by F. C. Huyck & Sons as a tribute to the Paper Industry. The book will be sent free upon request.*

**F. C. HUYCK & SONS • *Kenwood Mills* • RENSSELAER, N. Y.**

HUYCK *Felts*

**ALLIS-CHALMERS PAPER STOCK PUMP UNIT**

# Accessibility Like This Cuts Maintenance Costs

SEE HOW EASY IT IS to work on the packing and clear water seal of this Allis-Chalmers Type PW Paper Stock Pump. And notice that the casing bolts are in slots instead of holes. This makes it possible to remove the rotating element in five minutes and replace it in the same quick time. Neither suction nor discharge piping need be disturbed. Thus maintenance is easy and fast, maintenance costs are low.

Heavy construction designed especially to withstand the loads imposed by pumping heavy stock and special materials to suit the characteristics of the stock being pumped keep the necessity for maintenance down. Many parts are interchangeable on several sizes of pumps so spare parts inventory is low regardless of the number of pumps you operate.

## FREE ENGINEERING HELP

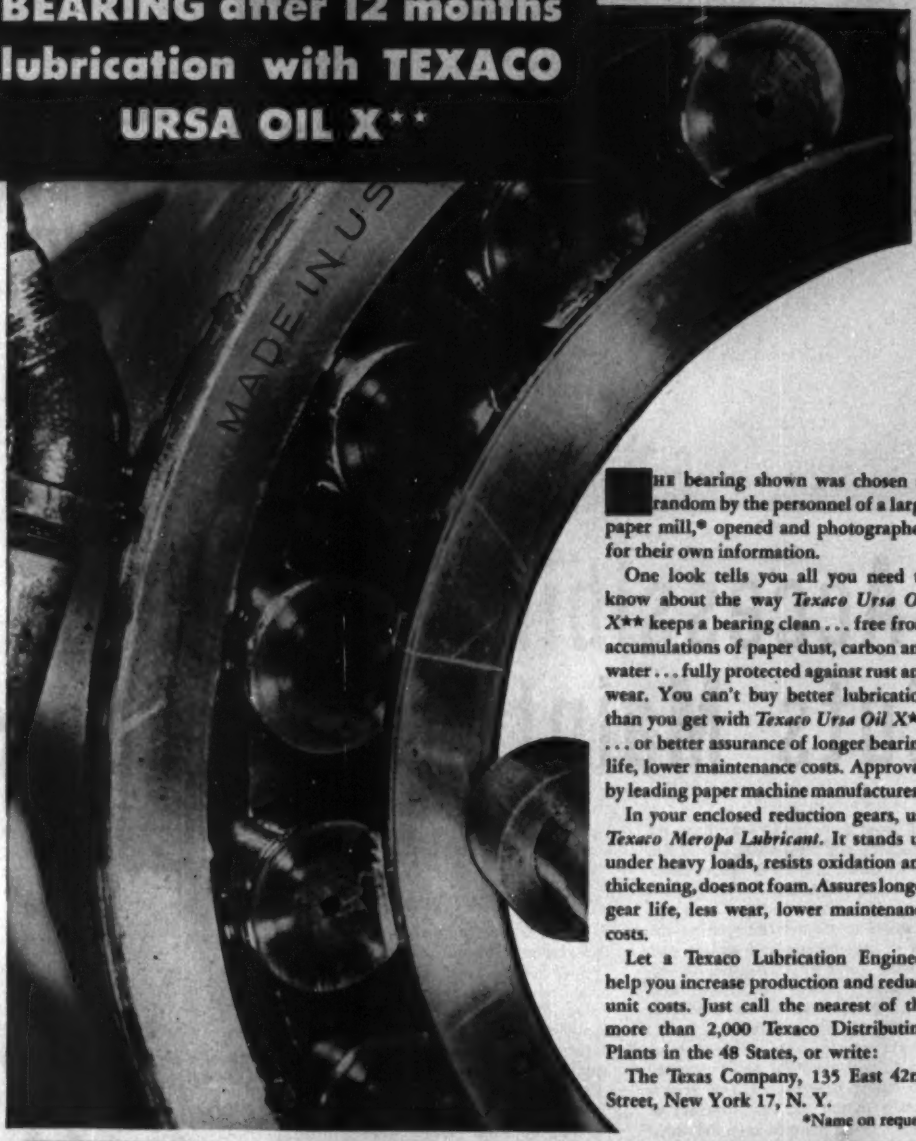
Allis-Chalmers pump representatives are thoroughly familiar with all types of paper making processes. One of these competent application engineers will be glad to help you with your pumping problems — or with your problems involving any other of the many paper making processes for which Allis-Chalmers manufactures equipment. Call your nearby Allis-Chalmers District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. Ask for bulletins 08B7112 and 08B6725. A-3404

AND OTHER EQUIPMENT FOR PAPER MAKING . . .

*Hi-Density, Texrope and Streambarker are Allis-Chalmers trademarks.*

**ALLIS-CHALMERS**

# Picture of a DRYER ROLL BEARING after 12 months lubrication with TEXACO URSA OIL X**




THE bearing shown was chosen at random by the personnel of a large paper mill,* opened and photographed for their own information.

One look tells you all you need to know about the way *Texaco Ursa Oil X*** keeps a bearing clean . . . free from accumulations of paper dust, carbon and water . . . fully protected against rust and wear. You can't buy better lubrication than you get with *Texaco Ursa Oil X*** . . . or better assurance of longer bearing life, lower maintenance costs. Approved by leading paper machine manufacturers.

In your enclosed reduction gears, use *Texaco Meropa Lubricant.* It stands up under heavy loads, resists oxidation and thickening, does not foam. Assures longer gear life, less wear, lower maintenance costs.

Let a Texaco Lubrication Engineer help you increase production and reduce unit costs. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

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TEXACO

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FOR THE PAPER INDUSTRY

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ABC

# Paper TRADE JOURNAL

ABP

VOL. 133 SEPTEMBER 28, 1951 No. 13

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## NEXT WEEK

**An excellent and comprehensive survey covering the use of corrosion resistant metals in the Paper industry** will be found in "Corrosion-Resistant Metals in the Pulp and Paper Industry" by Daniel L. Horigan. This article which will appear in two parts in successive issues is the first of a new series of University of Maine Lectures.

## REMEMBER THESE DATES

*OCT. 4:* Salesmen's Assn. of the Paper Industry Annual Luncheon, Stevens Hotel, Chicago, Ill.

*OCT. 4-5-6:* National Paper Trade Assn. Convention, Stevens Hotel, Chicago, Ill.

*OCT. 5:* Paper & Twine Assn. dinner, Hotel Blackstone, Chicago, Ill.

*OCT. 10-12:* American Pulp & Paper Mill Superintendents Assn., Southern and Southeastern Div's., George Washington Hotel, Jacksonville, Fla.

*OCT. 13-17:* The Packaging Machinery Mfrs. Institute, Nineteenth Annual Meeting, Mid Pines Club, Southern Pines, N. C.

*OCT. 15-18:* 6th Engineering Conference, Technical Assn. of Pulp and Paper Industry, General Oglethorpe Hotel, Wilmington Island, Savannah, Ga.

*OCT. 25-26:* Technical Assn. of Pulp and Paper Industry, Plastics Conference, State University of New York, College of Forestry, Syracuse, N. Y.

*OCT. 29-31:* National Foreign Trade Convention, Waldorf Astoria, New York City.

*NOV. 26 to DEC. 1:* 23rd Exposition of Chemical Industries, Grand Central Palace, New York, N. Y.

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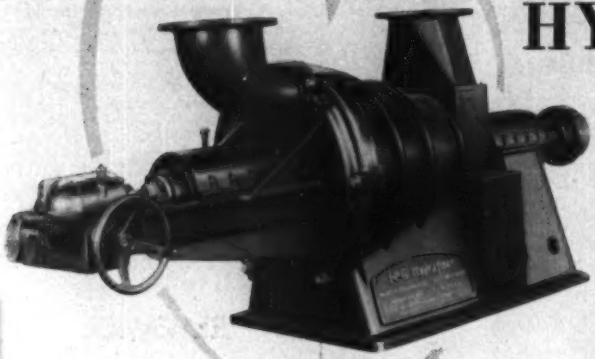
# *The Heart of the System is the*

# HYDRAFINER



Note Duotrol Plug Control on HYDRAFINER.

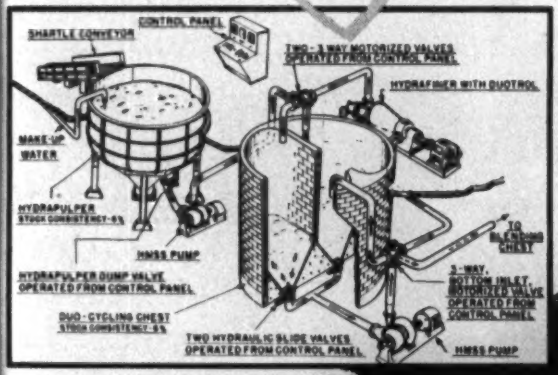
When it comes to the refining of virgin stock there is no method quite the equal of a good cycling—refining system—of which the HYDRAFINER is the heart.

Such a system involves cycling chests and HYDRAFINERS, so piped and valved as to permit the passing of the same stock through the HYDRAFINERS once, twice or as often as the grade being run dictates.

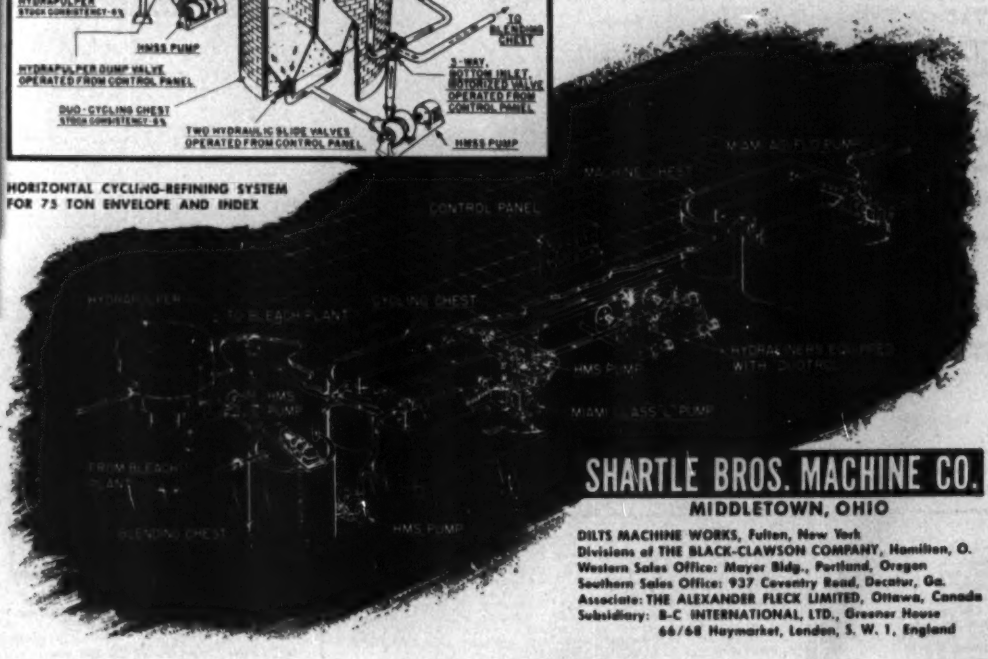
It is safe to say that no other conical refiner, or other refining means, quite equals the HYDRAFINER when it comes to hydration, fibrillation and fraying of the fiber to build up to maximum strength—and without appreciable cutting and shortening.

**Have us cite some mills employing cycling—refining systems and furnish full particulars. Write.**

New Shartle Duo-Cycling System completely automatic remote controlled.


CONTROL PANEL
SHARTLE CONVEYOR
TWO - 3 WAY MOTORIZED VALVES OPERATED FROM CONTROL PANEL
HYDRAFINER WITH DUOTROL
MAKE-UP WATER
HYDRAPULPER
HMSS PUMP
HYDRAPULPER DUMP VALVE OPERATED FROM CONTROL PANEL
3-WAY BOTTOM INLET MOTORIZED VALVE OPERATED FROM CONTROL PANEL
DUO-CYCLING CHEST
TWO HYDRAULIC SLIDE VALVES OPERATED FROM CONTROL PANEL
HMSS PUMP

HORIZONTAL CYCLING-REFINING SYSTEM FOR 75 TON ENVELOPE AND INDEX

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**MIDDLETOWN, OHIO**

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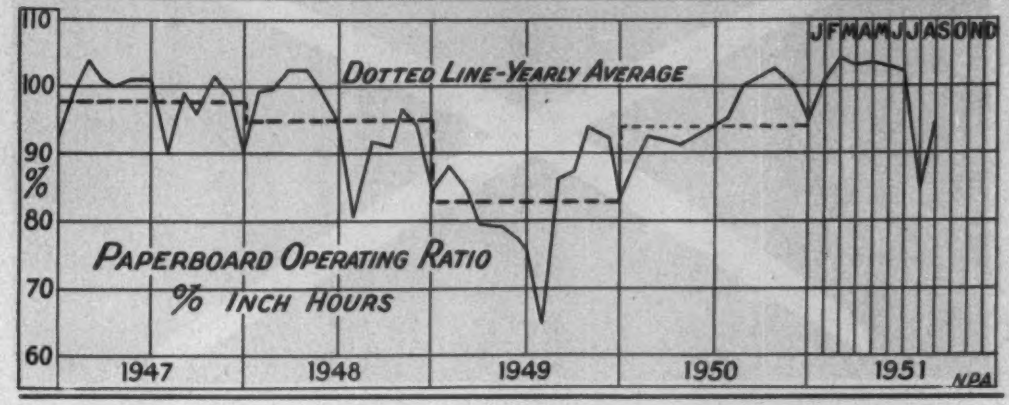


## Brief of Important Figures

| Source | Production | WEEK ENDING Sept. 15, '51 | Aug. 18, '51 | Sept. 16, '50 |
|---|---|---|---|---|
| APPA | Paper Production Percent Capacity[a] | 100.3 | 98.2 | 103.2 |
| | Unbl. Kraft Paper Production Percent | 102.4 | 94.3 | 91.7 |
| NPA | Paperboard Operating Ratio Percent Inch Hours | 94 | 93 | 100 |
| | | **July 1951** | **June 1951x** | **July 1950** |
| APPA | Paper Production[e] (Except Newsprint and Building Papers) ...Tons | 808,000 | 891,487 | 748,000 |
| | New Orders ...Tons | 848,000 | 889,173 | 957,000 |
| | Unfilled Orders ...Tons | 1,035,765 | 984,685 | 775,090 |
| | Shipments ...Tons | 796,000 | 893,075 | 745,000 |
| | | **[d]Aug. 1951** | **July 1951** | **Aug. 1950** |
| NPA | Paperboard Production ...Tons | 1,112,731 | 815,547 | 1,130,242 |
| | New Orders ...Tons | 1,081,321 | 814,729 | 1,365,968 |
| | Unfilled Orders ...Tons | 470,841 | 537,591 | 729,058 |
| | **Our Customers Activities Index[1]** | **Latest Mo.[c]** | **Previous Mo.[c]** | **Year Ago[c]** |
| FRS | Manufactures Total Index | 233 | 233 | 209 |
| | Durable Mfg. Index | 277 | 277 | 238 |
| | Nondurable Mfg. Index | 197 | 197 | 184 |
| | Chemical Products Index | 301 | 298 | 258 |
| | Mfg. Food Products Index | 164 | 158 | 164 |
| | Printing and Publishing Index | 170 | 179 | 169 |
| ODC | Magazine Advg.-Printer's Ink Index | 350 | 355 | 321 |
| | Retail Sales Combined Adjusted Index | 341.6 | 348.9 | 317.9 |
| | Drug Index | 234.9 | 229.8 | 222.0 |
| | General Merchandise Group Index | 319.5 | 333.6 | 311.1 |
| | Grocery and Combination Index | 440.8 | 444.3 | 378.9 |
| | **Prices Index** | | | |
| BLS | Consumers Price Index[1] | 185.2 | 185.4 | 170.2 |
| | Wholesale all Commodities[2] | 181.7 | 182.9 | 157.3 |
| | Wholesale Foods[2] | 186.3 | 187.3 | 162.1 |
| | Commodities other than Farm Products and Foods[2] | 170.5 | 171.7 | 148.7 |
| | Wholesale Pulp and Paper[2] | 196.2 | 196.2 | 155.6 |
| | Purchasing Power of Dollar, Consumers Prices[1] | 54.0 | 53.9 | 58.8 |
| | **General Activity Index** | | | |
| FRS | Mfg. Production-Worker Payroll | 429.4 | 428.3 | 362.7 |
| | Unemployment Compensation Initial Claims (M) | 1,118 | 908 | 1,104 |
| | Miscellaneous Carloadings-Thousands of Cars | 1,937 | 1,582 | 1,845 |
| | Electric Output (Million KW hr.) | 34,966 | 35,136 | 31,608 |
| PTJ | Average 32 P & P Common Stocks as of Sept. 22 | $40.28 | $38.91 | $33.61 |

[1] 1935 39=100 Unadjusted Index
[2] 1926=100
[3] New 6-7 day basis.
[4] For Five Weeks.
[e] For details see APPA Monthly Statistical Summary—July 1951 Estimated Figures
[c] Latest Month Available on Request
x Revised figures

# Here's how to cut your v-belt costs

**You can replace up to 316 sizes of endless v-belts with just 4 reels of Veelos**

From those four reels of Veelos you can make up 316 sizes of O, A, B and C section endless v-belts.

Any length belt can be coupled for quick installation on any drive in a few minutes.

Machine downtime is practically eliminated. Sliding or pivoted motor bases are not needed.

MAYBE you need belts of only one or two widths—but many different lengths—to keep all your drives producing. Then one or two reels of Veelos will give you a *complete* v-belt inventory.

You don't need to tie-up working capital in a heavy v-belt stock . . . you don't need to maintain costly inventory records. *With Veelos, you have the right size v-belt for any drive in your plant—all the time!*

Veelos on reels saves valuable storage space. It simplifies stock records; it eliminates belt deterioration and obsolescence.

Veelos is simple and easy to install. No need to dismantle drives with fixed centers or outboard bearings . . . no long, expensive interruptions to production. Just loop it around the sheave and couple the ends.

Check the advantages of Veelos and you'll agree that it can provide substantial savings for you.

VEELOS
THE LINK
V-BELT

***Everyone responsible for power transmission needs this Veelos data book.*** Gives complete engineering data, measuring and installation directions. Shows Veelos at work on scores of different drives in many different industries. Write and we'll send you a copy *free!*

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**ADJUSTABLE TO ANY LENGTH • ADAPTABLE TO ANY DRIVE**

Made in all standard sizes, fits all standard grooves. Packaged on reels in 100-foot lengths. Sales engineers in principal cities; over 350 distributors throughout the country. Veelos is known as VEELINK outside the United States.

Paper TRADE JOURNAL

# TRENDS

Office of the PAPER TRADE JOURNAL,
Wednesday, September 26, 1951.

For the past few weeks, this column has carried news of the domestic wood pulp supply, market opinions about the wisdom of cutting back overseas pulp prices to the Canadian level, and the trend of demand for paper, boards, and products which consume the pulps.

No attempt has been made to trace the pattern of supply or to analyze the trend of world markets for pulp and papers which lies at the root of all planning to control supply and price. The picture is too full of confusion for easy resolution.

## No Agreement Among Economists

In the first place, there is no agreement among Government economists about the trend of the nation's economy. The Administration holds that inflation will grow with defense spending, that controls are required to stem the tide. Commerce Department economists doubt the U. S. faces further inflation, and believes that critical material shortages will sharply reduce civilian production in coming months.

At least one economist holds that disposable consumer incomes after taxes are too low to support the level of today's prices.

Other business students believe the inflationary impetus has been checked by increasing inventories; that product shortages must develop again before inflation is possible. Still others continue to warn that world markets must be opened to trade or the free nations which are united in defense may find themselves with expanded production and no markets for their huge output. Some are optimistic about the near term but doubtful of the trend by mid-1952. And the New York market, at the close of September, is still waiting for the Fall business pickup.

## World Demand Lets Up

World market reports tell of a letup in demand for papers and boards for one or more reasons: (1) prices of papers and boards are too high for the average buyer; (2) stocks have been piled to wanted size; (3) there are no more dollars to buy raw materials at today's inflated prices.

The long-term picture differs from this reality. There is a huge unsatisfied demand for newsprint. Also planning for undeveloped areas will open up tremendous markets for book, sanitary and packaging papers. By and large, however, consumer resistance to high prices of paper is reported to have slowed demand, to have retarded the use of food and luxury packaging materials, and to have at least hastened the death of some European magazines and newspapers.

Steep pulp prices are reported to be curtailing paper operations in Denmark, reports *Foreign Commerce Weekly*. Noting the limited quantity of pulps available at market prices, and the serious deterioration of Denmark's foreign exchange position, the mills will not be able to take advantage of expanded facilities to increase output until conditions appear more favorable.

## Supply-Demand VS Controls

Provided by these reports is meat for reasoning that world pulp prices are inflated beyond the buying power of our dollars in the free world, that consumption has been cut by high prices; a line which appears to favor OPS controls.

The same reports support another line of argument: that price resistance will be the factor to force world pulp prices down—without the aid of U.S. ceilings and price controls.

## Export Potential For U.S. Waste Paper

These same world markets are seeking waste paper pulp substitutes in the U. S. market, and the export potential is reported to be considerable. Because of the requirements of export pack and the cost of ocean freight, few dealers have interested themselves in the foreign markets. It is important to note, however, that even the limited shipments are a support to the sagging domestic waste paper market.

## Govt. Controls and Woodpulp

Traditionally the time of year for pulp producers and mills to set their fourth-quarter pulp commitments, the industry is geared supply-wise to M-72, and pricewise to CPR 49.

The dip in demand for containers is showing up in unbleached krafts; market weakness in rayons has hit dissolving pulps; shifts in consumption and inventory positions produce a more fluid condition of supply. These and other patterns which are evolving are being watched.

**U.S. Pulp Export Markets.**—Because of the need of market pulps for the marginal producer, woodpulp exports were last winter placed under regulation of OIT: as to quotas by countries, by quarters of the year, also by allocation among applicants for export licenses.

A natural sequence of the well-intentioned, though perhaps ill-advised, controls was that the Scandinavians and Canadians have been taking over markets developed by U. S. pulp exporters. Further, because of drought conditions which closed Canadian woods for most of the summer, Canadian exporters have been enabled, by the premiums gained in export price, to buy U. S. west coast woods from under the nose of domestic pulp mills which must sell their output at ceiling prices. A sharp protest is being made to Washington that the market pulp supply which they sought to direct may be seriously depleted by wood supply which the Canadians are buying to make pulp to sell in export markets which are verboten to U. S. exporters.

On the other hand, exporters representatives last week met with OIT and discussed an increase in fourth quarter quotas (particularly in unbleached krafts and dissolving pulps) to meet the needs of friendly countries which normally import from the U. S. These and other recommendations were made as a Wood Pulp Export Advisory Committee to the Office of International Trade.

**M-72 Revision Looked For.**—Integrated mills see another side of the picture. If, it is said, there is an abundance of unbleached kraft which is being considered for the export market, then the first step should be to relieve some of the integrated mills from the M-72 order which requires them to reserve 3 percent of their output of unbleached kraft pulp for the market. Many of these mills, it is said, are not set up to handle pulp, have no dryers, have never sold pulp to the market. Their operation is described as unfair, uneconomical, and inefficient, and a considerable loss of fiber. As soon as the emergency permits, it is their opinion that they should be allowed to return to a normal operating basis.

**Soundview-Scott Merger.**—The proposed merger of Soundview Pulp Company with the Scott Paper Company last week hit the market like a bomb. If consummated, and there is little reason to believe it will not be, the Scott interests will take over 200,000 tons of bleached sulfite annually from market pulp consuming mills.

For the near-term, trade sources believe these mills are assured of their supply by M-72, Sec. 6-b, which requires the producer "to offer for sale the same percentage of his estimated production in each calendar quarter" as in the first quarter of 1951. The order also provides in Sec. 5-b that if a person both consumes and sells market chemical wood pulp, he may consume all provided he reduces his consumption of market chemical wood pulp by an equivalent amount.

The Scott Co.'s announcement tells of plans for building a west coast paper mill. Industry sources believe that when, as and if such a mill is built, what pulp is not used at that location will be shipped to other Scott divisions; and, if the Government controls are still in effect, Scott's purchases of market pulps will be reduced "by an equivalent amount."

—E.P.N.

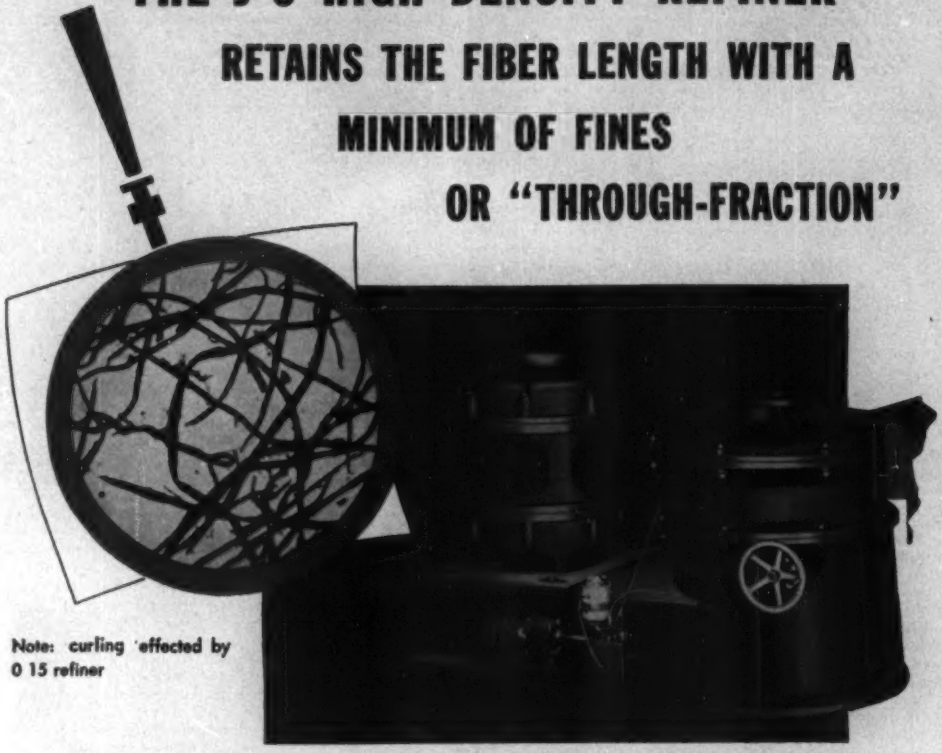
**Paperboard Production (Tons)***

| | Sept. 15 1951 | Sept. 8 1951 | Sept. 16 1950 |
|---|---|---|---|
| Production | 538,949 | 566,141 | 714,466 |
| New Orders | 222,703 | 161,170 | 231,325 |
| Unfilled Orders | 281,011 | 262,017 | 207,785 |
| % of Activity | 94 | 71 | 100 |

* Source: NPA.

# THE J-C HIGH DENSITY REFINER

## RETAINS THE FIBER LENGTH WITH A MINIMUM OF FINES OR "THROUGH-FRACTION"



Note: curling effected by 0 15 refiner

**USES: Defibering groundwood secondary screen rejects • Deshiving screened stock (groundwood)—chemical or semi-chemical • Defibering kraft and sulphite tailings • Will operate over a broad range of consistencies, but the specific power is exceptionally low at densities of 25% or higher • Self-cleaning—never plugs at any density • Has an inherently high capacity • Requires a minimum of floor space • Develops high mullen, tear and fold • Low in first cost and maintenance • Available in two sizes —with capacity of 25/50 tons/day or 75/150 tons/day • Used for introducing bleach solution uniformly into high density groundwood in the peroxide process • Develops appreciable curling as shown in photomicrograph above.**

*Manufacturers of the Zenith Continuous Pulp Press—Zenith Pulp Washer—High Density Refiner—Direct Heat Evaporator*

J·C

A PRODUCT OF

**JACKSON & CHURCH CO. • SAGINAW, MICHIGAN**

*WORK WELL DONE SINCE '81*

# News of the Week

Paper TRADE JOURNAL

## ANOTHER VANCOUVER MILL

Erection of a new pulp mill on the west coast of Vancouver Island has been planned. Prince Axel of Denmark, chairman of the board of directors of East Asiatic Co., Ltd., with headquarters in Copenhagen, is investigating possibilities of the development.

Consideration is also being given by the company to the establishment of a sawmill and plywood plant, which would be erected on Muchalat Arm. The mill might be supplied with power from the John Hart development of the B. C. Power Commission at Campbell River, B. C.

The company already owns large tracts of timber in the Gold River area, tributary to Muchalar Arm, and is seeking a forest management license covering a 132,000-acre area in the Gold River basin.

Included is 35,000 acres of government timber which would be added to the company's holdings.

East coast communities on the island do not want the license to be granted. They have already launched protests with Lands and Forests Minister E. T. Kenney.

They state the timber should be held to sustain east coast communities already established. Protests forwarded to the minister stress that the management license scheme was designed to perpetuate existing communities not to start new ones.

Reports here are that East Asiatic also owns or controls Gibson Brothers Logging Co. and Tahsis Logging Co. and that these enterprises will be combined in the new project.

## ELK FALLS PROGRESSES

Elk Falls Co., Ltd., expects to complete its plant at Duncan Bay on schedule so that opening can take place on June 1, 1952. Severe weather conditions last winter handicapped operations, but this setback has now been overcome.

Docks at the $40 million plant site are practically completed and the warehouse, office and repair shops have been built. Reinforced concrete has been poured for the timber room, machine room and groundmill room. Tiles and foundations are in place for the power plant and wood room.

Structural steel erection will start in October and it is expected that the buildings will be closed in by December, which will permit winter work being continued on the interiors.

## SCOTT-SOUNDVIEW MERGER

Scott Paper Co. and Soundview Pulp Co. have discussed informally the general terms of a proposed merger of the pulp company into the paper company. The proposal is to be submitted to the respective boards of directors of the two companies for approval at meetings to be held in the near future. A formal plan of merger, if approved by the directors of the two companies, will thereafter be presented to the holders of the common stock of each company for their approval.

The basis discussed for the proposed merger would be the issuance of 1,220,625 common shares of Scott in exchange for 976,500 shares of the common stock of the pulp company. Scott's presently outstanding common shares and preferred shares will remain outstanding.

Scott has for some years been interested in establishing a paper mill on the West Coast. The proposed merger will provide a site for such a paper mill as well as afford the great economic advantage of integrating raw material production with the manufacture of finished products.

## START CONSTRUCTION ON NEW ALBERTA MILL

Construction is starting October 1 at Yates, five miles east of Edson, Alberta, on a $5 million pulp and paper mill for New Pacific Coal & Oil Ltd. of Toronto.

This company has formed a subsidiary, North Western Pulp & Paper Ltd., to carry out the erection and operation of the plant. G. H. Allen is secretary for North Western Pulp with offices at 435 Lougheed Building, Calgary.

An agreement has been signed between the owner and the provincial department of lands and forests for the mill, which will provide 200 tons of pulp a day.

It will later be extended to manufacture chemical and semi-chemical pulp and paper.

Plant and equipment must be completed and in operation by May 1, 1954.

## STUDY ARROW LAKE PROBLEM

Conditions at Arrow Lakes, proposed site of a $75 million pulp and newsprint plant for the Columbia Cellulose Co. are being investigated. The surveyors report large and satisfactory stands of spruce and hemlock for producing high grades of alpha pulp, as well as substantial grades of cedar.

The plan would be to erect mills near Castlegar, B. C., where power would be available from the plants of the Consolidated Mining Co.

Much of the timber, however, according to surveyors, stands in comparatively low beach lands and this involves international complications.

The American Power Authority has for some time been negotiating in regard to water reserves of Arrow Lake as a storage basin for its waters at Coulee and Bonneville dams. It is argued by the United States body that these large plants on the Columbia River in Washington cannot operate at full capacity all the year round without utilizing the great storage facilities available north of the Canadian border.

If the international commission investigating this situation should permit such authorization, resultant dams would have the effect of raising the level of Arrow Lakes which would flood an estimated billion and a half feet of timber in the Arrow Lakes area, which would be utilized by the Columbia Cellulose Co. The only alternative would be immediate action by the Columbia Cellulose Co., so that all the low land territory would be logged first before the power development in Washington flooded the lands.

This would mean, however, that there would be no possibility of reproduction and reforestation in this area once the level of the lake had been raised by 30 or 40 feet, and hence it becomes an economic situation as to whether development of the project is feasible.

## EMPLOYES HONOR BOSS

Employes of John L. Forester, vice-president and general manager of Standard Paper Co., Milwaukee, Wis., honored him at a dinner recently, observing his 50th year with the company. Erick Erskine, of the Butler Co., Chicago, of which Standard is a division, presented a gold wrist watch to Mr. Forester, who joined Standard in Milwaukee as an errand boy. Forester is a past president of the Wisconsin Fine Paper Merchants' Assn.

## AUGUST NEWSPRINT REPORT

### NEWSPRINT ASSOCIATION OF CANADA, MONTREAL

| I. PRODUCTION AND SHIPMENTS in short tons: 2,000 pounds | | AUGUST 1951 | AUGUST 1950 | AUGUST Percent Change | YEAR TO DATE 1951 | YEAR TO DATE 1950 | YEAR TO DATE Percent Change |
|---|---|---|---|---|---|---|---|
| 1. Canadian Production: including Newfoundland | mo. and year to date | 484,563 | 466,443 | + 3.9 | 3,685,703 | 3,497,269 | + 5.4 |
| | per working day | 17,947 | 17,276 | + 3.9 | 17,823 | 17,002 | + 4.8 |
| | percent of capacity | 103.1 | 101.5 | | 102.4 | 99.9 | |
| 2. Canadian Shipments: including Newfoundland | to United States | 408,830 | 373,156 | + 9.6 | 3,178,295 | 3,094,193 | + 2.7 |
| | to Can. Consumers | 29,852 | 25,758 | + 15.9 | 236,894 | 228,396 | + 3.7 |
| | to Other Markets | 41,899 | 18,675 | +124.4 | 210,699 | 111,143 | +89.6 |
| | total: all markets | 480,581 | 417,589 | + 15.1 | 3,625,888 | 3,433,732 | + 5.6 |
| 3. U. S. Production: | mo. and year to date | 96,039 | 92,877 | + 3.4 | 734,968 | 663,652 | +10.7 |
| 4. U. S. Shipments: | to U. S. Consumers | 93,658 | 91,945 | + 1.9 | 727,226 | 655,051 | +11.0 |
| | to Other Markets | 830 | 1,005 | — 17.4 | 5,792 | 10,720 | —46.0 |
| | total: all markets | 94,488 | 92,950 | + 1.7 | 733,018 | 665,771 | +10.1 |
| 5. U. S. Imports from Europe: | *estimate; see Table 8 | *15,800 | 14,958 | + 5.4 | 135,292 | 112,199 | +20.6 |

| II. CONSUMPTION AND STOCKS in short tons: 2,000 pounds | | AUGUST 1951 | AUGUST 1950 | AUGUST Percent Change | YEAR TO DATE 1951 | YEAR TO DATE 1950 | YEAR TO DATE Percent Change |
|---|---|---|---|---|---|---|---|
| 6. U. S. Consumption: | estimated total | 450,287 | 453,327 | — .7 | 3,834,898 | 3,844,358 | — .2 |
| 7. North American Stocks: | U. S. Consumers | 798,390 | 625,892 | + 27.6 | 798,390 | 625,892 | +27.6 |
| | Canadian Mills | 148,957 | 184,727 | — 19.4 | 148,957 | 184,727 | —19.4 |
| | U. S. Mills | 10,191 | 8,695 | + 17.2 | 10,191 | 8,695 | +17.2 |
| | estimated total | 957,538 | 819,314 | + 16.9 | 957,538 | 819,314 | +16.9 |
| 8. A.N.P.A. Report: 525 Newspapers | Consumption | 344,470 | 346,795 | — .7 | 2,933,697 | 2,940,934 | — .2 |
| | Stocks (tons) | 544,698 | 457,995 | + 18.9 | 544,698 | 457,995 | +18.9 |
| | Stocks (days) | 49 | 41 | | 49 | 41 | |

## CUSTOMS COURT RULINGS

A decision of the United States Customs Court holds that test liner from Finland involving several thousand tons, valued at $600,000 was undervalued and it is estimated that the undervaluation was approximately 25 percent. The shipments were made soon after the end of World War II but the issue has been before the Courts since that time, according to Warren B. Bullock, Manager of the Import Committe of the American Paper Industry.

New cases filed by importers in the United States Customs Court include the following:

Two cases at Ranier, Minn., in which two carloads of toilet rolls from Canada classified for duty at 35 percent as manufactures of paper are claimed to be dutiable at the lower rate for tissue paper.

Paper napkins from Norway, classified for duty at New York as manufactures of paper, claimed to be dutiable at the lower rate for paper cut into shapes. Another similar case involves napkins from Holland and still another two shipments from England.

Gypsum lath from Ireland, imported at Tampa, classified as laminated paperboard, claimed to be dutiable at the rate for plain paperboard, in a protest on the New York Court docket.

Two shipments of Finnish Sulphite wrapping paper held by New York appraiser to have ben undervalued.

A variety of new problems before Customs officials involve a wide scope of paper grades. Among the new issues pending before Customs officials are the following: Tag Board from Canada claimed to be dutiable at the lower rate for printing paper; shoe board from Canada claimed to be dutiable at the lower rate for fibre board; ruled cards from Canada, claimed to be dutiable as manufacturers of paper, believed to be dutiable as bristol; cut out artistic designs claimed to be dutiable as paper cut into shapes, believed to be dutiable as articles of metal coated paper; waxed crepe paper imported at Buffalo from Canada being studied to determine whether it is dutiable as creped paper or at the lower rate for waxed paper; imports of Finnish paperboard at Boston and New York under investigation for possible undervaluation, some of the prices being lower than the ruling Finnish price for any grade of pulp.

## FIGHTING PAPER WANTED

Invitation to Bid has been issued by the New York Quartermaster Procurement Agency, 111 East 16th Street, New York 3, N. Y., on QM-30-280-52-203, covering Cup, Paper, Cold Drinks, 10,502,000 each. Bids will be opened October 8, 1951 at $1:00 P.M. (EST) at the New York Office. This procurement is for the U. S. Army.

QM-30-280-52-197, covering Tag, Shipping, Cloth, Type A, With and Without String, Grade 2, (Various Sizes), 2,600,000 each. Bids will be opened October 8, 1951 at 3:00 P.M. (EST) at the New York Office. This procurement is for the U. S. Army.

QM-30-280-52-229, covering Paper, Corrugated, Single Faced, Flexible, 70 lb. kraft or jute back, .009 corrugated media, bogus, 1,000 rolls. Bids will be opened September 27, 1951, at 10:00 a.m. (EDST) at the New York office. This procurement is for the U. S. Marine Corps.

QM-30-280-52-216, covering Cards, Index, Chemical Wood, Substance 110 (25" x 30"—500). Unruled single ply, various sizes and colors, 239,960 packages; and Cards, Guide File, Blank (Collated) plain and letter size (various), 169,510 sets. Bids will be opened October 2, 1951, at 10:00 a.m. (EST) at the New York office. This procurement is for the U. S. Navy.

QM-30-280-52-231, covering Bag, Interior Packaging, 646,000 each; and Sleeve, Greaseproof, and Waterproof, Heavy Duty, Heat Sealing (various sizes), 154,117 each. Bids will be opened October 12, 1951, at 11:00 a.m. (EST) at the New York office. This procurement is for the U. S. Army.

QM-30-280-52-189, covering Bags, Grocer, Paper, Chemical Wood, Unbleached (various sizes), 2,550,000 each. Bids will be opened October 2, 1951, at 11:00 a.m. (EST) at the New York office. This procurement is for the U. S. Navy.

QM-30-280-52-213, covering File, Paper Board, (Various), 8,600 each. Bids will be opened October 12, 1951 at 2:00 P.M. (EST) at the New York Office. This procurement is for the U. S. Navy.

## NEWSPRINT CONSUMPTION

Daily newspapers reporting to the American Newspaper Publishers Assn. consumed 344,470 tons of newsprint in August, 1951, compared with 346,795 tons in August, 1950, and 318,046 tons in August, 1949. This was a decrease under August, 1950, of 0.7 percent and an increase over August, 1949, of 8.3 percent. This is the third consecutive month, and the fourth time this year, that consumption for the current month has shown a decrease compared with the corresponding month in 1950. There were four Sundays each in August, 1951, 1950 and 1949.

Stocks of newsprint on hand and in transit at the end of August, 1951, were 49 days' supply for the average of all daily newspapers reporting to the ANPA. This was an increase of 3 days' supply as compared with the end of July, 1951, and the highest since the end of July, 1949, when there was 49 days' supply. There was a 41 days' supply at the end of August, 1950.

The total estimated newsprint consumption in the United States for August, 1951, was 450,288 tons which includes all kinds of uses of newsprint. For the first eight months of 1951, it is estimated at 3,834,898 tons. During the first eight months of 1951, the reporting newspapers used 2,933,697 tons of newsprint, a decrease of 0.2 percent under the first eight months of 1950 and an increase of 6.7 percent over the first eight months of 1949.

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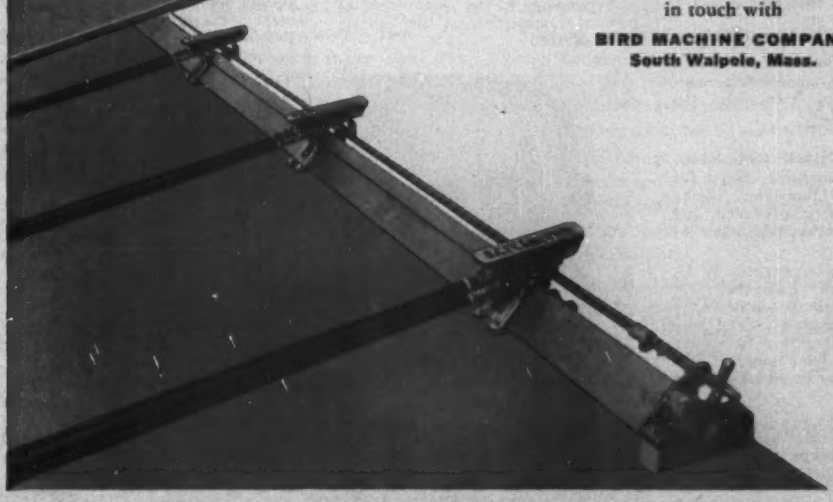

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# PEOPLE

LOUIS J. HOFFMAN has joined Central States Paper & Bag Co., St. Louis, Mo., as vice-president in charge of personnel and plant protection. He is a former business manager of the St. Louis *Star-Times*.

DR. ARNOLD E. HANSON, formerly director of Brown Co.'s Relations Dept., resigned recently to accept a position with the University of Toledo. H. P. BURBANK, formerly assistant to Dr. Hanson, has been promoted to the position of manager, Personnel and Public Relations. W. L. GIVEN has been promoted to the position of manager, Industrial Relation, and will be in charge of the administration of all mill Union contracts and of the mill personnel men.

NORMAN A. COAN of Marathon Corp., Menasha, Wis., has been appointed a member of the Committee on Research of the National Assn. of Cost Accountants.

FOLKE BECKER has been chosen to receive one of the American Forestry Assn.'s five annual conservation awards. Mr. Becker, president of the Rhinelander Paper Co., was one of the organizers of Trees for Tomorrow, Inc. He is now president of the group. The award will be presented at the forestry association's 76th annual meeting at Jefferson, N. H., on October 8.

HOBART V. HODGE has been promoted from general sales manager to vice-president of sales of River Raison Paper Co., Monroe, Mich. A. W. SCHULTE was named general sales manager but also will continue as Cleveland plant manager for the present, a post he has held since 1942.

HON. CLARENCE WALLACE, CBE, Lieutenant-Governor of British Columbia, has been appointed a member of the board of directors of the Powell River Co. Ltd.

ROBERT E. SCHMELING, forester and wood procurement official for the Mead Corp., Manistique, Mich., since 1946, has been promoted and transferred to the Escanaba office of the firm.

Mr. Schmeling, who succeeds W. H. HILDEBRAND in Escanaba, will have charge of all timberlands in Mead's Michigan division. Mr. Hildebrand has been transferred to Mead's Chillicothe office but remains Mr. Schmeling's superior in the Michigan division.

McDUFF W. LAMB has been appointed sales promotion representative by Transparent Paper Products, Ltd., Montreal, Que.

EUGENE O. HANSON, formerly New England representative of the Paper Sales Division of Brown Co., has been appointed assistant manager of the Paper Division.

P. A. BURT has been appointed city sales and promotion manager of General Paper Corp. Mr. Burt has been associated with Butler Paper Co. of Chicago for many years, and also had mill experience with both Hammermill and Seaman Paper. In his new capacity, he will direct all fine paper sales in the Minneapolis and St. Paul areas and supervise the company city sales staff.

LEO O. SCHUBART has been elected vice-president and secretary of the Neenah Paper Co. DONALD H. SEVERSON was elected treasurer, and DAN A. HARDT was elected to the board of directors. JAMES C. KIMBERLY, chairman of the board since 1940, has resigned and JOHN R. KIMBERLY was elected to replace him.

CHARLES M. HOWELL, Millville, N. J., former general manager of the Scott Paper Co., Chester, Pa., has been appointed a Lecturer in Paper Technology in the Department of Chemical Engineering at the University of Maine.

Mr. Howell was graduated from Swarthmore College in 1919 and undertook graduate study at Cornell University and the University of Maine, obtaining his M.S. degree from the latter in 1922.

He joined the Scott Paper Co. in 1921 and after several years of experience in their beater rooms and on the paper machines, he was made tour boss in the paper mill. It was at this time that the Scott Paper Co. established their technical control, and Mr. Howell was the first man to assume the responsibility of technical control for the entire company. In 1928 he was made assistant chief engineer and a year later chief engineer in charge of technical control, research engineering, and design and development. In 1931 Mr. Howell was named engineering manager in charge of all engineering development and maintenance. He became a member of the board of directors of the Scott Paper Co. in 1934, and a year later was named general plant manager.

He will take up teaching and research duties closely connected with the five-year curriculum in operational management. This curriculum, recently initiated, combines the four-year accredited chemical engineering courses with additional work in business management, law and personnel studies as well as technical studies in the fields of pulp and paper production.

RALPH A. BRABBEE has been appointed advertising and sales promotion manager of Kimberly-Clark Corp. Mr. Brabbee has been associated with the corporation since 1940. He began in the industrial division of the sales department, with responsibility for sales in the field of insulating and industrial materials. He has organized and directed the company's present program for sales training.

LEONARD C. GOLD has been appointed general manager and sales director of Rex Specialty Bag Corp., Brooklyn, N. Y. Mr. Gold has been with the company for three years.

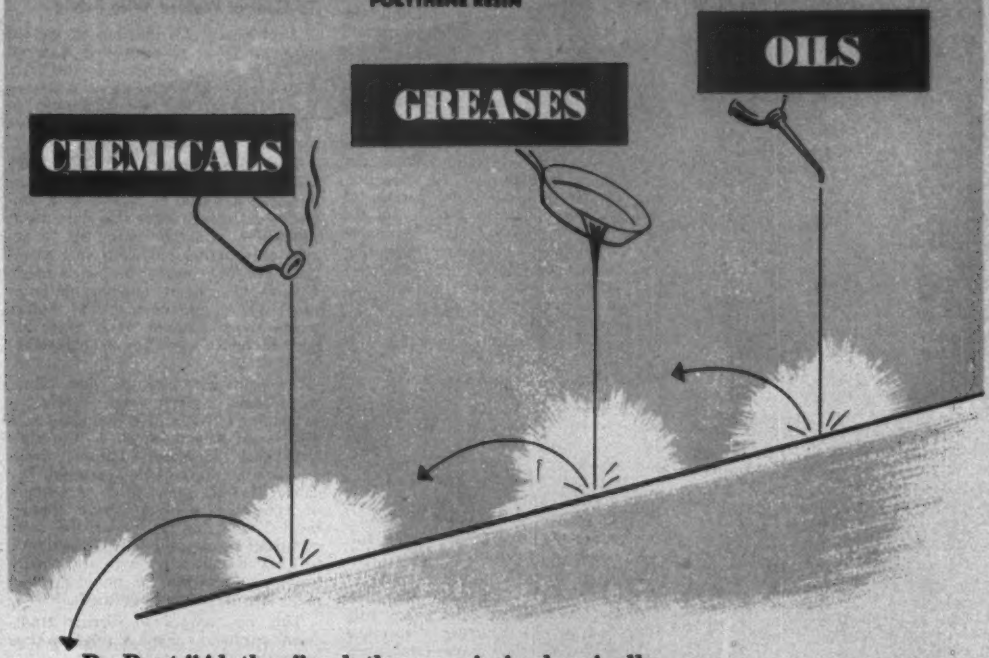
JOHN D. RILEY has been named personnel manager for Southern Paperboard Corp., Savannah, Ga. Mr. Riley has been connected with the Robert Gair Co. for the past ten years.

LEE TRENHOLM, Toronto, public relations manager of Provincial Paper Limited, will be one of the judges in this year's Canadian Direct Mail Leaders Contest to be sponsored by Provincial Paper Limited. Contest is confined to direct-by-mail advertising material, designed and produced in Canada between September 1, 1950, and August 31, 1951. Contest closes October 1.

DENNIS E. COUSINS of Mobile, Ala., has been elected a director of Hollingsworth & Whitney Co. He succeeds LOUIS OAKES of Greenville, Maine. Mr. Cousins was mill manager of the company's Chickasaw mill at Mobile, Ala., from the time that mill began operations in 1940, and was elected a vice-president of the company in December 1950.

# Coatings of ALATHON* on paper resist

POLYTHENE RESIN




**Du Pont "Alathon" polythene resin is chemically inert, and is tasteless, odorless and non-toxic. These properties make paper coated with "Alathon" ideal for packaging a wide range of products from chemicals to foods.**

**"ALATHON" STOPS WATER VAPOR.** Coatings of "Alathon" have a low water-vapor transmission rate . . . keep dry products dry, moist products moist. They do not become brittle or crack with age . . . remain flexible, even at temperatures as low as -70°F. That is why paper coated with "Alathon" is outstanding for packaging frozen foods, ice cream and other products which must withstand low temperatures.

**"ALATHON" IS TOUGH AND STRONG.** A thin coating of "Alathon" on kraft, glassine and other papers takes rough handling without breaking or tearing. And this superior coating is economical. One pound of "Alathon" will cover 30,000 square inches of paper with a 1-mil coat.

**"ALATHON" FOR MORE SALES IN THE FUTURE.** Because of its outstanding chemical and physical properties, manufacturers and processors of many kinds of industrial and consumer goods will want paper coated with "Alathon" for their packaging material. Plan *now* to profit with "Alathon."

Present demand exceeds our production. But by planning now, you'll be able to move fast when "Alathon" is available. Write for more information about Du Pont "Alathon" polythene resin . . . or for technical assistance. We'll be glad to help you.

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# GOVERNMENT GOSPEL

### 1952 Naval Stores Program Announced

The 1952 Conservation Program for producers of gum naval stores is administered by the Forest Service for the Production and Marketing Administration under regulations similar to those governing PMA's Agricultural Conservation Program. This year's rate of payment for various conservation practices is the same as that of a year ago.

Two practices which were found to be impractical were eliminated—selective recupping and selective recupping continuation. Producers who met the requirements for these practices in previous programs may receive payment under the restricted cupping continuation practice which is similar.

(Selective recupping is the use only of trees which already have "faces," thereby leaving some trees unworked to grow into unblemished saw timber of pulpwood. A "face" is the chipping or cutting of the surface of the live tree to stimulate the flow of crude gum into cups which are fastened to the tree.)

Provisions of the 1952 program, effective January 1, 1952, are: (1) Payment of 2c per face for each properly installed first year face on trees not less than 9 inches in diameter at breast height. (2) Payment of ½c for continued proper working of each 2nd, 3rd, 4th and 5th year face on trees not less than 9 inches in diameter. (3) Payment of 3½c for each properly installed first year face on trees not less than 10 inches in diameter. (4) Payment of 2c for continued working of each face which was installed under the 10-inch diameter cupping practice in 1950 or 1951. (5) Payment of 4½c for each properly installed first year face on trees not less than 11 inches in diameter. (6) Payment of 2½c for continued proper working of each 2nd, 3rd, and 4th year face qualified under 11-inch diameter cupping in 1949, 1950, or 1951. (7) Payment of 5c for new faces installed on previously worked trees. (8) Payment of 2½c for proper working of each face installed under the restricted cupping or selective recupping practices in 1950 or 1951. (9) Payment of 7c each properly installed first year face on trees selectively marked to meet specific requirements of this practice. (10) Payment of 3c for continued working of 2nd, 3rd, 4th, or 5th year faces originally installed under the selective cupping practice. (11) Payment of 8c to 11c for each face accepted for pilot plant tests for controlled experiments in new methods and equipment for gum production. (12) A requirement that participants follow approved practices relative to fire protection and timber cutting.

Copies of the bulletin outlining the terms and conditions of the program will be available for distribution to turpentine farmers in about two weeks. The bulletin may be secured from the Program Supervisor, U.S. Forest Service at Valdosta, Ga.

The Naval Stores Conservation Program was inaugurated in 1936 to encourage farmers to follow conservation practices in the pine forests of the Southeast. Participation in the program is voluntary. It is available to any turpentine farmer installing faces during or after 1947. In 1951 cooperators in the Naval Stores Conservation Program are working about 85 percent of all faces in the turpentine area of the South.

### Fibre Can and Tube Prices

Recommendation that their industry price under a proposed tailored regulation covering converted paperboard and fibreboard products was made by members of the Fibre Can and Tube Industry Advisory Committee at their second meeting with OPS officials.

The proposed regulation would follow closely the provision of old OPA regulation 187.

Manufacturers under the proposed regulation would use the price lists they had in effect during a specified base period if they have established their ceiling prices by use of price lists.

Those who price by formula would employ the same formula used in the base period, and apply the same margin used during the base period to their costs for materials, labor and delivery.

The period of January 25 to February 24, 1951, was recommended as the base period under the regulation.

Committeemen recommended that the cost of materials used in the formula be based on some averaging device rather than the actual cost of materials used in any particular job to simplify estimating prices.

Committeemen reported their current prices with a few exceptions are the prices established under the General Ceiling Price Regulation, GCPR.

They estimated the effect of applying the Capehart formula to their costs would be to increase prices slightly over GCPR prices.

### Potential Market in Europe for Waste Paper

The Pulp and Paper Branch of ECA has indicated that while Europe is not traditionally a market for waste paper from the United States, a current European shortage of waste paper and pulp may provide American exporters with trade opportunities. Shipment to Europe of surplus waste paper from the United States will have the double effect of relieving the shortage there and making European pulp available for other paper needs, the ECA Branch pointed out.

### To Control Welded Wire Fabric

A proposed classification of welded wire fabric as a controlled material by the NPA was endorsed by the Wire Reinforcing Mesh Industry Advisory Committee as an important step in minimizing the industry's distributive problems.

Beginning January 1, 1952, NPA said under the proposed plan welded wire fabric would be classed as a controlled material. After that date, manufacturers would be permitted to accept only authorized controlled materials (ACM) orders for wire mesh. Failure to convert existing defenserated (DO) orders to ACM orders would deprive them of a place on manufacturers' production schedules, NPA said.

The committee indicated that failure to include welded wire fabric in Schedule 1 of CMP Regulation 1 (Rules of the Controlled Materials Plan) has placed an additional drain on manufacturers of this material. Because of this, some small consumers of controlled materials have supplemented their orders under the self-certification provisions of Direction 1 to CMP Regulation 1 with abnormally large requirements for non-controlled materials, including wire mesh.

This has tended to disrupt traditional customer - supplier relationships, industry members said.

NPA pointed out that classification of reinforcing mesh as a controlled material would permit more careful screening of orders for wire mesh placed by small users.

The committee recommended that users of small tonnages of controlled materials, combined with larger tonnages of wire mesh, should submit their over-all requirements to NPA for analysis to assure the receipt of allotments to cover first-quarter 1952 production.

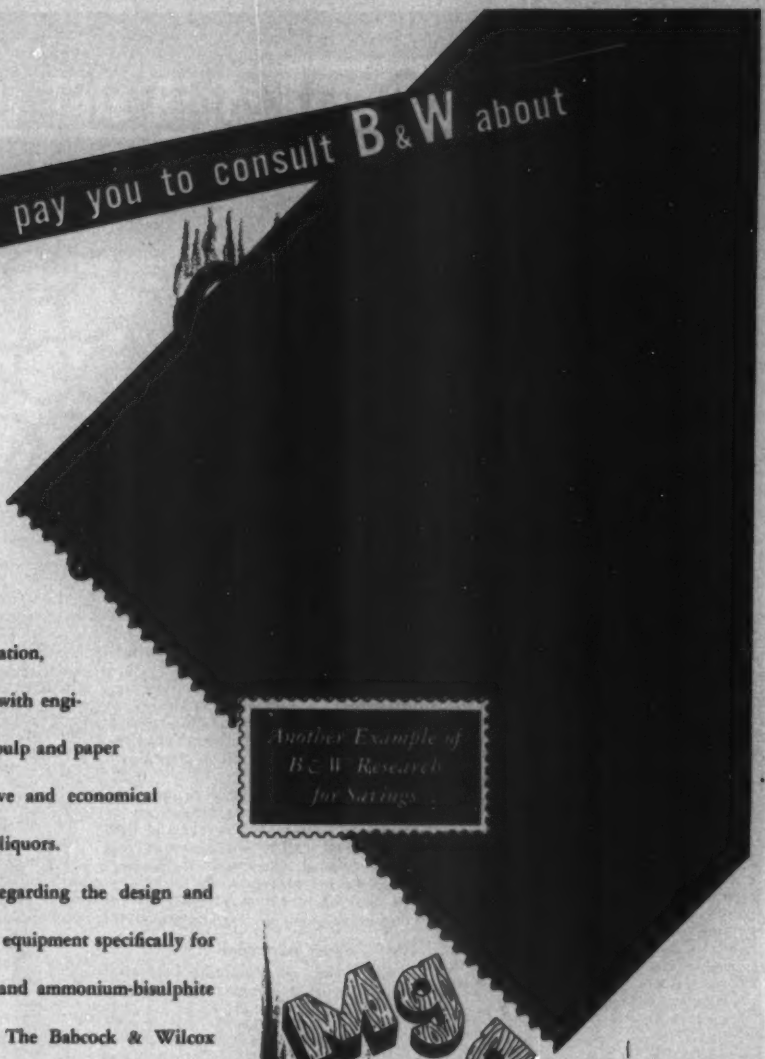
NPA informed the committee that, beginning with the first quarter of 1952, the industry would operate under production directives to be approved by the Steel Division. Under the proposed plan, wire mesh manufacturers would be classed as "further converters" pursuant to Section 8 of NPA's basic steel order, M-1.

It is anticipated that the new plan would create a more realistic supply-demand situation with regard to reinforcing mesh, NPA said.

As a guide in determining future requirements of welded steel mesh, NPA said, manufacturers have been asked to submit their production patterns for the first quarter of 1950. Data submitted should include distribution of mesh for highway construction, concrete products and building.

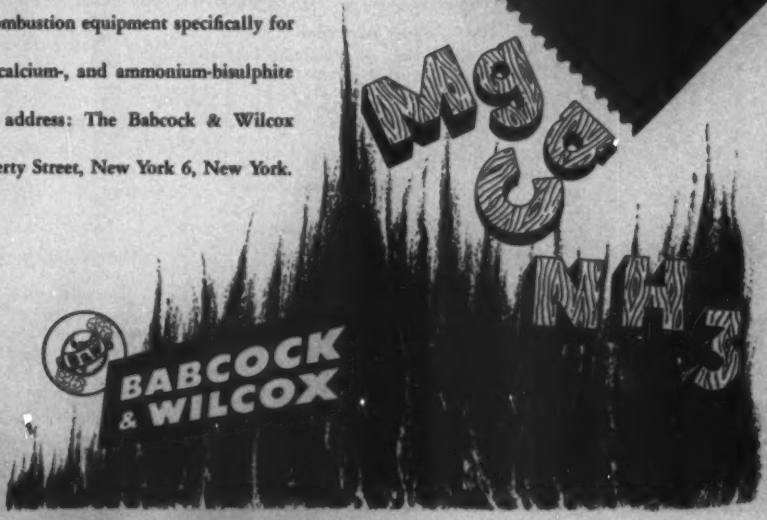
Emphasizing that the output of wire

# it will pay you to consult B&W about




**After extensive experimentation, B&W is ready to consult with engineers and management of pulp and paper mills on the most effective and economical means of burning sulphite liquors.**

**Inquiries are solicited regarding the design and construction of combustion equipment specifically for the magnesium-, calcium-, and ammonium-bisulphite processes. Please address: The Babcock & Wilcox Company, 85 Liberty Street, New York 6, New York.**




P-739

mesh products for concrete piping could be further increased by additional standardization of mesh sizes, the committee recommended that purchasers of wire mesh for manufacturing concrete products should adhere wherever possible to standard sizes listed in a Simplified Practice Recommendation of the Department of Commerce as amended.

In reviewing the demand outlook for welded wire fabric during 1952, NPA spokesmen indicated that extension of runways and construction of airports, as well as requirements of water and sewage system projects, would absorb larger-than-normal quantities of mesh during 1952.

### CMP Steel Allotment

| Fourth Quarter of 1951 | | |
|---|---|---|
| | Requirement Tons | Allotment |
| Pulp Paper, Textile Chemicals, Electrical, Electronics, General Industrial Machinery ..... | 121,723 | 32,515 (26%) |

### Ask Increased Wood Pulp Quotas

Members of the Wood Pulp Export Advisory Committee at a meeting with the Office of International Trade, U.S. Department of Commerce, suggested that fourth-quarter export quotas for wood pulp could be increased as compared with the third quarter without endangering domestic supplies.

Committee members also stressed the importance of establishing export quotas at least 30 days in advance of the opening of each quarter, to allow for the time consumed in transacting business overseas, such as obtaining U.S. export licenses, foreign import permits, letters of credit, and making other arrangements.

Industry members said that unbleached kraft wood pulp is readily available, and exports could be maintained at or above the third-quarter quota of 25,000 short tons. They pointed out that such pulp is not stock piled by producers, but that production is geared to demand. A low level of exports therefore results in lower production, they said.

Firm orders held by the industry for delivery of dissolving pulp in the fourth quarter total more than twice the third-quarter export quota of 7,000 tons, committee members reported. They expressed the opinion that the current decrease in consumption of dissolving pulp by the domestic rayon industry might permit increased exports. Government representatives pointed out that the scarcity of sulfur is an important factor in production of this type of pulp.

Exports of pulp for papermaking in the third quarter, limited to a 10,000-ton quota, were abnormally low, and should be increased in the fourth quarter to meet the essential requirements of friendly countries normally importing from the United States, the committee said.

It was also suggested by the committee that export quotas generally should be distributed among license applicants and importing countries in relation to historical trade patterns and long-term export interests.

OIT reported that exports of all types of sulphite and sulphate wood pulp to all countries, including Canada, in the first half of 1951 totaled 98,000 short tons, or 1.4 percent of the net U. S. supply (production plus imports) of 6,905,000 short tons.

OIT also reported on the tonnages of wood pulp exported, by grades, in the first half of 1951 as compared with third-quarter licensing and exports in previous years:

| | Exports | | | | |
|---|---|---|---|---|---|
| Commodity | 1948 | 1949 | 1950 | 1st-2nd Quarters, 1951 | Exports Licensed 3rd Quarter, 1951 |
| Bleached sulphite, rayon and special chemical grades (Schedule B No. 460100) ..... | 18,000 | 25,500 | 27,500 | 11,100 | 7,000 |
| Bleached and unbleached sulphite (paper grades), bleached and semi-bleached sulphate (Schedule B Nos. 460200, 460400, 461000, 461100) ... | 69,700 | 69,700 | 55,900 | 60,800 | 9,900 |
| Unbleached sulphate (Schedule B No. 460800) ..... | 6,100 | 27,200 | 9,600 | 26,000 | 22,000 |

### Sulphur Requirements and Supply

WASHINGTON, D. C. — Minimum fourth-quarter sulphur requirements are expected to exceed production by 100,000 tons, the industry's advisory group reported to NPA.

NPA reported in turn it was contemplating a further curtailment of less essential uses of sulphur, including sulfuric acid and carbon bisulfide, but not in time to affect the fourth quarter situation.

The advisory committee recommended that most users be restricted to below the present 100 percent of 1950 use allowed. NPA announced it was considering a restriction of sulphur-consumer inventories to 25 days' supply, and also that it planned to encourage recovery and production steps.

### CMP Copper Allotment

Allotments to General Industrial Equipment of which the Pulp and Paper Industry Machinery is a part are:

| | Brass Mill 000 lbs. | Wire Mill 000 lbs. | Foundry 000 lbs. |
|---|---|---|---|
| 3rd quarter ..... | 67,946 | 9,568 | 33,617 |
| 4th quarter ..... | 42,400 | 3,870 | 14,750 |

### Total C/N For Pulp and Paper

WASHINGTON, D. C.—Certificates of necessity to pulp and paper concerns for expanding facilities now total 69, involving proposed investments aggregating $486,853,000, of which tax amortization has been approved for 57.5 percent.

### Canada's Exports to Venezuela

OTTAWA—Canada's trade with Venezuela is at record levels now, according to Canadian Government Trade Commissioner John A. Stiles, with Canadian exports to Venezuela having skyrocketed in recent years and one of the principal exports being newsprint.

Dr. Ralph T. Stewart, Director of OIT's Agricultural Products Division, presided at the meeting, which was attended by: Arthur E. Oliphant, Castle & Overton, Inc.; Ralph Roberg, Puget Sound Pulp and Timber Co.; B. I. Sheldon, Gottesman & Co., Inc.; R. M. Buckley, Soundview Pulp Co.; R. L. Vayo, St. Regis Paper Co.; R. H. Greene, Export Manager, Buckley Dunton Pulp Co., Inc.; Jacques Surault, Rayonier, Inc.; J. D. Sullivan, Bowater Paper Co., Inc.; D. J. Pitot, Price and Pierce, Ltd.; Joseph W. Quarte, National Container Corp.

## SEFTON FIBRE STARTS

Container Corp. of America has announced that the Sefton Fibre Can Co., a wholly owned subsidiary with headquarters in St. Louis, Mo., will open its new plant in Piqua, Ohio, on October 1.

Although planned as a manufacturing unit to augment the company's output of fibre cans for regular commercial use, the plant's initial production will be on a government order under Army Ordnance contract which will absorb 100 percent of capacity. As soon as the government's needs are satisfied, however, the management will turn to the manufacture of fibre cans for a wide variety of consumer and industrial goods.

Carl Wenstrup, formerly in charge of the Sefton Fibre Can Co.'s Cincinnati office, will be general manager of the plant.

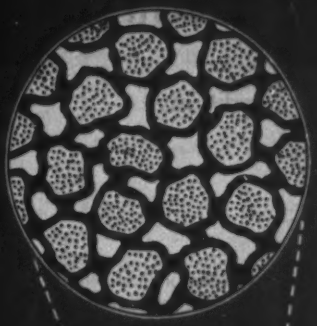
## HAMMERMILL WAGE AGREEMENT

Union and company officials at Hammermill Paper Co., Erie, Pa., have signed a new contract for some 1,500 workers following approval of a new wage agreement by union members.

Although the new contract will call for wage hikes amounting to 11 cents an hour plus special compensation increases, all but a little more than one cent of the boost will be subject to approval by the Wage Stabilization Board. The agreement runs until June 1, 1952, with no reopening clause.

Included in the contract are a seven-cent hourly pay hike retroactive to June 1 and a four-cent raise effective Nov. 1. Special adjustments to certain maintenance employes are provided.

# Is This Right for *Your* Pulp?



***If It Isn't, Norton Can Furnish a Stone That Is Exactly Right.***

***Right in . . .***

**ABRASIVE** The abrasive will be just the right kind — CRYSTOLON, ALUNDUM, or 38 ALUNDUM — to convert your wood into the kind of pulp you want.

**GRAIN SIZE** The abrasive will be in the stone in just the proper grit size or combination of grit sizes to give you the right fiber classification.

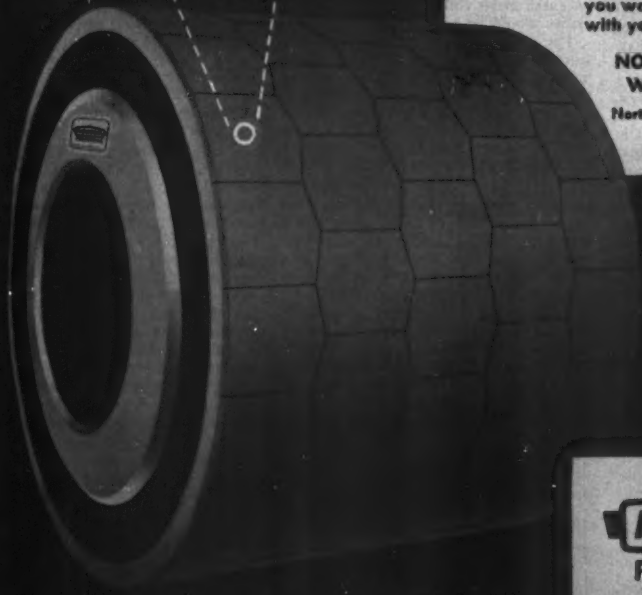
**HARDNESS** The abrasive grains will be held together with just the right amount of vitreous bond to give a stone of the correct hardness (or grade as it is known in grinding wheel terminology) for maximum stone life.

**STRUCTURE** The grains of abrasive will be spaced just the correct distance apart to produce from your kind of wood the long, well-fibrillated fibers that make the best paper.

**The Norton Pulpstone Engineer can specify for you just the right Norton stone to produce the kind of pulp you want from your wood with your grinders.**

**NORTON COMPANY**
**Worcester 6, Mass.**

**Norton Company of Canada, Ltd.**
**Hamilton, Ontario**



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Abrasives — Grinding Wheels — Grinding and Lapping Machines — Refractories — Porous Mediums — Non-slip Floors — Norbide Products — Labeling Machines

MAINTENANCE—XII OF SERIES

# Conservation of Paper Machine Felts

## Part I—Effect of Operating Conditions

**N. J. Larsen**[1]

In a previous article, L. M. Woodside reviewed important considerations in the design and manufacture of papermakers' felts, and machine conditions which affect felt life. Additional factors worthy of attention by mill operating men follow.

*Felt Conditioners:* Much may be said for the use of felt conditioning units. When properly designed and applied, they plan an important role in conserving felts. On Fourdrinier machines the most frequent cause for felt removal is filling up rather than wearing out, and this can often be corrected with conditioners.

On cylinder machines, filling-up usually results in inefficient operation, reduction in the rate of production, and short felt life. Good use may be made of a combination of showers and a whipper, so positioned that the first shower is directed at right angles to the inside of the felt just before the whipper, which should operate against the face of the felt. It should have sufficient pressure to penetrate through the felt and wash the collected solids toward the side from which they entered, thus leaving them on the felt surface for action by the whipper. The shower following the whipper should be directed at an angle of 45 degrees toward the whipper to act as a flushing shower. Showers should be of the fan type spray since a straight jet, if not oscillated, might soon wear the felt in streaks.

*Whippers:* Mills using whippers should make periodic inspection of their condition for it is possible their arms may work loose or be worn unevenly to strike the felt a harder blow in one spot than in another. It may be found in a few cases that intermittent use of the whipper rather than continual use may prove satisfactory for keeping the felt clean. Minimum operation of the unit is best. Its speed must be in proper relation to that of the machine, for if running too fast it has the tendency to scrub the felt surface. This is particularly true in cases where the felt is too tight. The length of draw between lower and upper whipper rolls as well as the felt tention should be such that the whipper may effectively function in knocking foreign matter from the felt surface.

*Felt Rolls:* Carrying rolls should be kept in good condition to keep frictional wear at a minimum. Inspection of their surfaces, as well as their bearings and alignment, should be made frequently. It is best to use the least number of rolls possible and those used should be so arranged that the felt does not travel around an excessive number of sharp bends. On the other hand, it is at times better to have an extra hitch roll when otherwise the draws would be too long.

The same rules apply in the case of wormed rolls. If the worming is too high or the edges too sharp, the felt nap may be quickly worn off or short life may result. When wooden rolls with felt strips are used, be certain no tack heads protrude to punch holes in the felt, or wear it in streaks.

*Weighting of Presses:* In the attempt to remove water, many machines carry weighting on the press rolls, which is beyond the point at which any economy is actually realized. This causes wear on felts and in addition often results in marking the sheet. By experimenting, the proper amount of weighting to produce the best degree of water removal may be determined and the minimum possible for the desired results should be used.

*Roll Crown:* Related to this problem is the question of crowning and density. If rolls are improperly crowned, they will cause uneven wear on the felts and frequently produce the added problem of felts filling up. There are a great many cases of excessive crown where a press must be over weighted to get uniform water removal. By cutting the crown it is possible to get essentially the same water removal with less weighting, hence better felt life.

*Roll Density:* The density of rolls affects the nip area: if they are too hard they have a cutting action on the felt yarns, if too soft they have a rubbing action on the yarns; both can result in shortened felt life.

*Roll Alignment:* Also to be considered is the alignment of press rolls. When not in alignment, as a result of worn bearings for example, a shearing action on the felt takes place to cause excessive wear, streaks, bagging or wrinkles.

*Felt Washing:* Regardless of the conditioners and the cleaning method, many felts still fill up and must be washed. There are any number of cleaning compounds on the market which, when properly used, will do a good job without injury to the felt. However, certain precautions are necessary when using them, and directions must be followed carefully. For example, washing compounds should not be used hotter than 120°F., as higher temperatures are likely to cause excessive injury to wool, often resulting in stretching.

The job of reconditioning a felt involves removal of the maximum amount of collected dirt and at the same time, restoration of the resiliency of the woolen yarn. To accomplish this, the cleaning solution used should penetrate rapidly into the deposits of foreign matter and loosen them sufficiently for removal by emulsification and rinsing action.

There are at least three different ways of washing felts. Some mills are now washing their felts on the machine while still making paper, by applying the cleaning solutions through Vickery Conditioners; dip rolls followed by suction boxes; sprays or showers across the felt followed by suction box or suction roll. Others wash their felts roped. Still another group favors the method of removing their felts to be washed off the machine.

We believe the type of felt cleaning done while the paper machine is still producing has great promise and while not too many mills are now using the method, where it is in use, the results have been satisfactory. The cleaning compound should be substantially neutral, free rinsing and warmed to "hand

[1] Albany Felt Co., Albany, N.Y.

hot" (110-120°F.). It should be applied uniformly across the felt and then followed by uniform rinsing and water removal. When properly applied this method keeps the felts in good condition without any loss of production time.

For washing on the machine with paper production stopped, we have found that more mills prefer to rope their felts than to wash flat and a suggested method for washing in this manner follows:

1. Pressure removed from rolls and showers turned off.
2. Felts slackened.
3. With machine turning at slow speed and with the felt flat, or roped only slightly, about half of the warm detergent solution is applied through a shower pipe or with a pail. Approximate time is 10 minutes.
4. Felt roped to about ⅓ to ½ its width.
5. Felt is run 10 to 20 minutes with the balance of the warm detergent solution being added slowly to maintain a good suds.
6. The felt should be widened out to the flat position and showered with fresh water from 10 to 20 minutes.

The detergent solution used in this manner is prepared by mixing 3 to 15 pounds of the tetergent depending on its nature in 50 gallons of water heated to approximately 120°F. with a steam hose. The detergent most satisfactory for the method may be determined by experiment within the mill and the one giving the best results should be used.

The same general procedure may be followed for washing the felt flat. This is simpler, requires less handling, and when properly applied is quite satisfactory. In washing flat it is essential to apply the washing solution and rinse water from a shower pipe across the entire width.

Care must be exercised in using alkaline or acid solutions to avoid excessive damage to the felt. Alkalies such as sodium bicarbonate and soda ash can be used for washing if the temperature is kept approximately 110° F. The more alkaline types of silicate and tri-sodium phosphate may at times be used but in these cases it is important to hold the temperature down to 100°F. and it should be recognized as a more severe method. Caustic soda should not be used.

In the case of acids, solutions should be held to 120°F. and should not contain over 15 percent muriatic acid or 5 percent sulphuric acid as both may cause excessive stretch to felts if not properly applied and rinsed. The felt companies should be consulted for their recommendations and their laboratories are available for testing cleaning agents whenever necessary.

*Felt Storage:* Felt storage rooms should be cool and dry since mildew, destructive to wool fibres, forms in moist places. Felts should never be laid against a concrete, brick, or stone wall, as condensation of moisture from the air is likely to occur on such surfaces, creating in the felts conditions favorable for mildew growth. Cleanliness in the felt room is always important, especially during the summer months, as dirt is both injurious to felts and attractive to moths. Moth preventives should be used frequently and storage shelves should be covered with tar paper.

Felts should be kept in their original papers and tied tightly wherever possible. Should there be holes in these wrappings they should be repaired by mending with tape or if badly torn, wrappers should be renewed.

*Chemical Treatment:* Under certain mill conditions, chemical treatment of a papermakers' felt may result in improved performance or longer life. Of first importance, of course, is that the felt be properly designed; then, if felt failure is due to an alkaline condition, for example, the felt maker may be able to provide a chemical treatment which will help to counteract this condition.

*Nylon-Content Felts:* Still another method of wool conservation is the use of a nylon-wool blend. Nylon has greater resistance to frictional wear than wool, and correct percentages properly blended frequently provide longer felt life.

*Conclusion:* This article and the previous one have described methods for conserving papermakers' felts. We would emphasize, however, that longer felt life is not necessarily the objective. Of major importance is trouble free performance at good speed which results in high average production for the life of the felt. It is often true that the best felt is not the longest lived. Overall economies on steam, as well as product quality, rate of production, profit margin, etc., should be taken into consideration. It is very possible to be penny wise and pound foolish in conserving felts.

Throughout the articles we have stressed the importance of selecting the right felt for the job, establishing conditions which permit best utilization of the felt and maintaining those conditions. Along these lines, consultations with qualified felt company representatives usually pay dividends.

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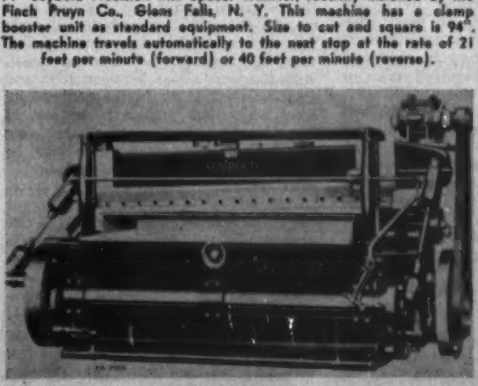
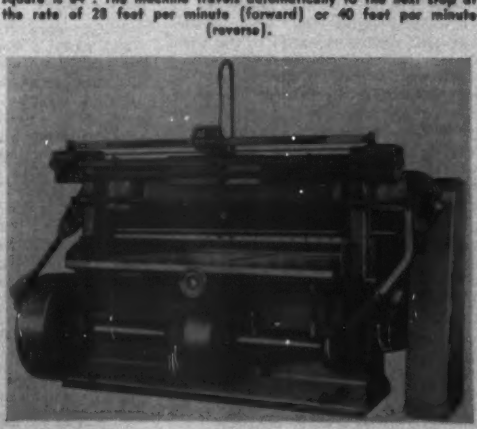
## Recent Seybold Installations

94" Seybold Precision Mill Spacer Trimmer, recently installed by the Finch Pruyn Co., Glens Falls, N. Y. This machine has a clamp booster unit as standard equipment. Size to cut and square is 94". The machine travels automatically to the next stop at the rate of 21 feet per minute (forward) or 40 feet per minute (reverse).



84" Seybold Series "Sixty" Mill Spacer Trimmer, such as these recently installed by the Lee Paper Co., Vicksburg, Mich. and the Gardner Board & Carton Co., Middletown, Ohio. These machines have a clamp booster unit as standard equipment. Size to cut and square is 84". The machine travels automatically to the next stop at the rate of 28 feet per minute (forward) or 40 feet per minute (reverse).



# Reflected Light Is Not Enough*

**A. C. Monteith**

Vice-Pres., Westinghouse Electric Corp.

## Introduction

This meeting has been called to discuss a problem of vital importance whose gravity is appreciated within the profession but not sufficiently understood by some branches of our Government and particularly by the general public. In short, it is the problem of whether our technical resources, which are the foundation of our country's growth, are to be maintained strong for the future welfare of the people—or whether they are to be sapped away through wasteful and indiscriminate use.

The solution to this problem is one which we engineers and scientists must ourselves initiate. The very fact that the problem exists today is an indication that somewhere along the line we have failed to educate society concerning the place of the engineer in the economic life of the country. It is true that the engineer's works are recognized as being eminently successful, many as being near-miracles, buf there is lack of appreciation of what is required to create an engineer and his technical working facilities.

To set the stage for the discussion which is to follow, let me trace for you the role of the engineer in society. This may help us determine what it should be in the future — in fact, *must* be if we are to avoid weakening our industrial economy and our ability to defend ourselves against aggression.

Let me make clear at the outset that we are talking about all branches of science and engineering. This includes pure and applied research in the basic sciences — mathematics, physics, and chemistry — and all the engineering groups — civil, mechanical, electrical, chemical, metallurgical, and their subgroups — aeronautical, sanitary, hydraulic, and so on. All of the technical family have a common stake in this matter.

If one were to trace the growing importance of the engineer and scientist, where would one begin? Perhaps with that forgotten, unrecorded day when the wheel was conceived, for that marked the beginning of labor-saving devices. Or, one might start at some later time when certain men began to plan structures for the common good. These men were termed civil engineers to distinguish them from military engineers. Because of their work, water was controlled and put to man's uses, streams could be crossed without boats, windows of glass were devised to protect man from the abuse of the elements. More commonly, the industrial age, with the engineer as the master mind, is taken as beginning with the invention of the steam engine, such as the crude internal-condensing engine of Newcomen in 1711, and the greatly improved engine of Watt, who added an external condenser in 1769.

## The Wonderful World of 1900

For our purposes of evaluating engineering, it is convenient to begin with the turn of the present century. By then the industrial age was well under way. In fact, most people believed technology had reached its zenith. We had fast trains, steam-driven ocean liners, voice communication by telephone, rapid dissemination of news at home and abroad by telegraph and newspaper, some homes were equipped with running water, inside toilets, comfort heating, and even "brilliant" lighting from carbon-filament electric lamps. In the chronicles of January, 1900, which reviewed the miracles of science and engineering during the previous century and attempted a look at what lay ahead, it was generally conceded that little more than technical refinements need be looked for. Life had been made comfortable and pleasant. The world was at peace. Our's had become a prosperous nation.

What more could one ask? One could make a comfortable living for his family by working no more than 72 hours per week. Some people could afford a week's vacation in the summer, perhaps even a hundred miles or so away from home. One could purchase beef butchered in Chicago and brought to local communities in iced refrigerator cars, and even some vegetables and fruits showed up in northern markets a few weeks ahead of the home-grown variety. Life was wonderful. People generally looked for little further development. The engineer had, by and large, done his job.

## A Half-Century of Technical Accomplishment

We smile now at such a state of affairs. The general populace could not foresee — could not even imagine, much less desire—what lay just ahead. We *now* know that only a small beginning in technical accomplishment had been made. Ours was then basically an agricultural economy. In the intervening years we have changed from an agrarian to an urban nation, there being nearly half of the population on farms at the turn of the century and only 16 percent on farms in 1950. This has been made possible by the mechanization of farms and has naturally carried with it a vastly expanded industrial production to support the increased number of urban people.

The Model-T Ford, because it was mass-produced, introduced the automobile age in 1908 when it brought the motorcar within reach of an average American. And the automobile sired the paved highway. Roads, until then, were quagmires after every rain. About 1900 Marconi, Fleming, and deForest brought the miracle of radio, and in 1920 Conrad introduced radio broadcasting by which music, news, and entertainment was brought into the home by the turn of a switch. Out of the work of Langley and the experiments of the Wright brothers at Kitty Hawk in 1903 came the airplane, which brought to the common man air mail service in 1918, rapid transportation in the United States in the latter half of the '20s, and later even trans-oceanic travel. The automobile, radio, airplane, etc., have broadened the horizon of the average man from a few miles to the other side of the earth. These have contributed much to an increased tempo of doing things. America must not slacken its pace, as the potential enemy could sweep past us and the whole contribution to our way of life could be a boomerang. The work of Taylor, of Bethlehem Steel, with tungsten alloys between 1895 and 1900 resulted in the high-speed cutting steel which has proven to be one of the greatest inventions for increasing production. The foundation laid by Edison and Westinghouse before the turn of the century developed electricity into an everyday necessity for even the humblest of homes. The application of the steam turbine to electric generators by George Westinghouse in 1899 resulted in cheap electricity, and the invention of the drawn-tungsten lamp by Coolidge in 1911 made high-quality light available to millions. The electric motor took out the back-breaking work of washday

* Presented before Engineering Manpower Convocation. Pittsburgh, September 28, 1951.

and brought refrigeration to the kitchen—which added immeasurably to the health and joys of living. Motion pictures appeared soon after the turn of the century, starting with the Nickelodeon, first introduced commercially by Harris about three miles from this meeting room. Movies were enriched in the late '20s by the addition of sound and soon thereafter by color. And now we have one of the greatest of all: television, around which a tempest rages. This product of engineering has made it possible to watch at home events of news, sports, and entertainment as they happen long distances away. This recital of what the scientist and engineer have done in the last 50 years could go on indefinitely. The few points cited give support to the statement that more progress has been made in technological achievements in the past 50 years than in the previous 5000 years.

### The Technical Job Is Never Finished

None of this could be foreseen by the typical American of 1900. But before chiding him too much for his complacency, his unawareness, let us remember that it was *not* just a condition peculiar to a half-century ago. It is a *perpetual* condition. It exists *now*. Because it exists now—and will continue to exist at any future time—we engineers have an obligation to excite the imagination of the American people to the fullest if America is to continue to progress.

We must not censure the public for accepting without question the accomplishments of the scientist and engineer. Nor can we expect the average person to have the imagination to want or to see what the technical man has not yet accomplished. At any given time, technical developments seem to be in a generally satisfactory, indeed, a wonderful, state. Nobody felt the lack of automobiles before they were introduced. No one longed for radio broadcasting before 1920. The public apparently does not understand that to maintain and to advance our standard of living, more engineers, more scientifically-trained men must be available. The public does not recognize both sides of the problem that scientists and engineers are required not only to improve existing accomplishments that are accepted as a necessity, but also to give birth to those new marvels that lie beyond our limited horizons. There appears to be forces at work today that are anxious that the public should not recognize this necessity, so vital for long-range survival.

### The Technical Man Seems To Be Working Himself Out of a Job

In one sense, it appears that the engineer is working himself out of a job; that *less* technology instead of more will be needed. Indeed, at least one lunatic fringe advocates such—the Technocrats. It might seem that, once the production line is established by which thousands of automobiles or television sets can be made carbon-copy fashion, the need declines for engineers. And, as engineers devise automatic machinery and pushbutton methods, the demand for technical skills might appear to grow less. Likewise, with automatic computers that can do in a week what a corps of engineers would take a year to do manually, we should get along with fewer designers—or so it would seem.

You and I know the contrary to be true. The base of engineering is broadening. Indeed, engineering can be looked upon as an inverted cone, with rapidly widening sides. The number and complexity of problems is building up in any given activity so that the number of engineers must continue to increase if we are to expect a continuing improvement in our standard of living.

### The Materials Problem

Let's take a look at some of the reasons for the increasing need of engineers. Consider the materials situation, for example. Actually, material technology is becoming increasingly complex, for two reasons. In our free-enterprise system, new materials are continually being created in the laboratories of industry and colleges—and faster than ever before. Behold the thousands of kinds of plastics, synthetic films, the several families of man-made fibers such as nylon and orlon, which have industrial as well as consumer-goods uses, the silicones, and the many varieties of light metals. Just a catalog of the new alloys—different because of their processing as well as their constituents—would fill pages. Each of these thousands of new materials has the potential of improving an old product or creating a new use.

There is a second aspect to the development of materials. In our prodigal use of raw materials we have been depleting our reserves of natural resources and, therefore, must look with increasing vigor to replacements or means of conservation. Witness iron ore, copper, lead, and zinc! Greatly expanded technology will be required to find the solutions for long-range progress in our economy.

### The Energy Problem

Energy requirements pose problems of increasing complexity to the engineer. Our per capita use of energy is rising rapidly and the population is increasing at a fast rate. We have repeatedly told ourselves that there are centuries of coal reserves, mountains of shale oil, billions of barrels of oil still to be found—and now we hear that atomic energy may make all other energy forms obsolete. But if we take a close look, we find the energy picture is not so bright. The better water-power sites have been developed. The best and most accessible coals have been mined. The thick-veined, easily-reached, high-quality coal is, we are learning, by no means inexhaustible. This will mean improved methods of mining—more technology, if you please—to get at the remainder. Liquid-fuel reserves are probably adequate for another generation or two—perhaps enough for our sons, but not enough for our grandsons. Our way of life is now absolutely dependent on liquid fuel. We see no immediate way to get along without it. This demands that we learn how to produce it from coals, lignites, shales, tar sands, and perhaps even from growing things, in anticipation of the day when the output of oil wells dwindles to a mere trickle relative to our needs. All this because atomic energy, although bound to have an important place in the energy picture as now conceived, cannot supply our energy needs alone. Even if it could, the technical know-how required for atomic-energy utilization makes other tough technical assignments seem like a game of marbles. Eventually, we will have to assign whole schools of scientists and engineers to learn how to live on our energy income from the sun, instead of on the energy so conveniently stored for us in the ages past. Taking it any way you like, there is an enormous amount of work yet to be done, so we must persistently drive ahead.

### Higher Living Standards Call for Greater Worker Productivity

The constant pressure to improve our standard of living calls for ever-increasing engineering effort. To give the worker more income, more free time, less of the truly dirty and arduous tasks, the engineer must make machines that are more automatic, that can produce more, and run faster. This calls for new kinds of machines, more efficient with better controls, and installed and operated according to planned systems. In no other way can the worker increase his productivity, and thereby his standard of living. Further rise in the standard of living is definitely dependent on new engineering. Also, this effort must be on a continuing basis, for it requires years to advance an idea from the stage of conception to the point where it finds its place in our way of life. Research and engineering, therefore, cannot be started and stopped like water from a faucet, for interruption is deadly, and regeneration consumes time we cannot afford.

### Defense and Technology

So far in this discussion I have not recognized the Biblical statement that "there shall be wars and rumors of wars." Wars have always been a part of our life in this world, and in the mid-point of the 20th Century we have not found the solution to preventing wars. The best preventive for war is finally being recognized as a strong defense. We are fast moving into an era where the possibility of war must be a recognized part of our existence. As a matter of fact, it is probable that

for a time our way of life will revolve around the prospects of war. I have credited engineers with much of the advance of our standard of living, but I must also admit that the engineer has been responsible for making each war more vicious than the predecessor. The very strength of our productive capacity is also a basic reason for more vicious war. Much thought has been given to evolving more diabolical methods of waging war. The very strength of our civilian economy is also our real strength in production for war. We must recognize with increasing alertness that this demands the best thinking of our engineers if we are to survive as a nation. The engineer must be given his opportunity to continue to devise weapons and not take too much time out himself to put them into action. His other engineering accomplishments, such as the radio, the automobile, etc., are operated by people without technical training, and the engineer is free to put his effort into their improvement. So it must be with defense weapons. Our potential enemy is not overlooking the necessity for engineering to strengthen his position. The best summation of the necessity for keeping engineering strong for war and peace is found in a recent issue of TIME, which reads:

"Herodotus figured that 100,000 men toiled 20 years in the hot Egyptian sun to build the Great Pyramid of Cheops. Assuming a twelve-hour day and a seven-day week, this works out at 8.7 billion man-hours. The U. S. is now getting ready to put forth every year a defense effort equivalent to five Pyramids of Cheops. . . , This effort, unprecedented in history, is partly caused by changes in military technology; in Julius Ceasar's day, the average cost of killing a man in war was 75c; in World War I, it was $21,000; in World War II, $75,000, and the cost is still going up. The U. S. would not have a chance of meeting the increased cost of security if it were not for changes in industrial technology, which may be moving even faster than military technology. Nobody knows whether the U. S. can, in fact, carry the burden. It is only certain that no other nation ever could. Two centuries ago, a nation that could spend on sustained defense 10 percent of its food bill would have been a marvel. The U. S. now thinks it can spend $7 billion more for defense in a year than it does for its total annual food bill." The importance of the technical man grows from war to war, not in a linear proportion but as a function of the square or cube. Modern wars are wars of machines, airplanes, ships, rockets, guided missiles, radar, tanks, submarines, and atomic weapons.

If the events in Korea have given the idea that, after all, the foot soldier is all-important, we must remember that the events there have proven that it is not superior numbers of men, but rather fewer well-equipped men that have been successful. This takes no credit from the GI, who has fought there with dauntless courage. How else, except by superior air and fire power, could our forces have done so well against vastly superior numbers?

In fact, the Western World must look to the engineer for its defense, because in manpower alone we are hopelessly outnumbered. We must rely on quality, not quantity—and it is the engineer who can provide that essence of quality. It behooves our Government and our people to give every encouragement, every assist to those industries engaged in providing new and improved tools for defense. It would be the height of folly to rob industries of their trained technical men, or to draft all those young men for the Armed Services, some of whom might better be allowed the engineering training necessary to man our defense production plants of the future.

We cannot do as we did in the last war. When we accepted the challenge of the Axis nations we anticipated a relatively short struggle. Under such conditions everything is expendable and we could therefore afford to divert most of our young men for fighting, whether ultimately destined for professional ranks or not. The task of improving and developing new weapons was in the main shouldered by the older generation of engineers. In the latter part of that struggle, lasting less than five years, we recognized the error of this reasoning and were forced to launch a vastly expanded technical training program. Why ignore this experience now?

The policy of considering everything expendable is perhaps satisfactory for a short war, but it won't work now. As has been said by others, between the black of war and the white of peace are many shades of gray—which will change in tone with the whims of Communist leaders. It must be assumed that this period of changing gray may last for years—too long to allow the older generation to carry the load of developing the weapons of defense. It would be, under present foreseeable conditions, suicide to sweep, indiscriminately, our technically-minded youth into uniform. At the present time, we must maintain an adequate civilian economy to pay for an extensive defense effort, and we must also be ready for total war.

Unfortunately, the policy of maintaining an adequate reservoir of technically-skilled youth has met resistance. It is a part of our philosophy of democracy that people are equal—with equal rights and with equal responsibilities when we are in danger. There is an inherent feeling that somehow it is not right to say that certain young men must carry arms while others are reserved for technical education and technical jobs. Thus we have heard the accusation that a "caste" system would be set up by making young men capable of professional education deferred from immediate military draft. This feeling can come only from the emotions — not from the mind or from wise consideration of realities. Our potential enemies would like nothing better than for us to follow this natural, but emotional, urge. They know that American technology is the chief barrier to world domination. Now the American people must be made to fully understand this.

We must resist firmly any immediate policy which would drain away all our technically-minded youth into basic armed service where their greatest contribution to our nation's defense would be lost. We must resist this influence, whether it comes from a mistaken interpretation of responsibilities in a democracy, or from the subtle campaign of groups hostile to our way of life. Dissipation of our technical resources is the worst possible disservice we can render to our armed forces.

Our whole case so far has been for civilian use of engineers. Let it also be understood, once and for all, that I do not recognize the ever-growing necessity for technolog, in the armed forces. Engineers are necessary to keep our technical war machine working at greatest efficiency. The officers' training now conducted in a number of engineering schools has placed many outstanding men in the military reserves, and the whole process of universal military training and service could ultimately place every able-bodied man in reserve status. My purpose in making such a positive case for industry is to present the other side of the picture—to emphasize the necessity that we secure a proper balance between the requirements of the armed forces and essential industry inherent for the survival of our country, at least during the next few years when it is evident that engineers will be in short supply. It will take much study and sober judgment to secure an equitable balance.

### Few Developments Are Without Peace-time Value

It should be remembered, too, that many of the technical developments created under the stress of war become useful in our peace-time economy. It is easy to make a long list of developments given an accelerated impetus by military demands. Some of these are the steel ship, and materials such as nickel steel, synthetic rubber, magnesium, radar, and atomic energy. Commercial flying owes its advanced status to the enormous development of aircraft in wartime. This was true in World Wars I and II, and now particularly jet aircraft are coming into their own decades ahead of where they would be through normal commercial development.

### Conclusion

What I have said has been spoken and written many times before — but that is just the point. We in this room

# The MORDEN SLUSH-MAKER...

## Introducing PULPER

- For PULPING
- For BREAKING
- For MIXING
- PRELIMINARY TREATMENT

The *Slush-Maker* pulper quickly and efficiently gives the initial disintegration to all pulps, brokes, or waste papers. In addition, through a hand-wheel controlled bar to bar setting, difficult flakes and bundles are readily brushed out of the stock, color and other additives mixed and brushed in, furnishes blended and, if desired, given a preliminary beating treatment, either on a continuous or batch basis.

The *Slush-Maker* completely defibers high wet strength papers, even in cold water, without damaging the fiber.

*MADE BY THE MANUFACTURERS OF THE MORDEN "STOCK-MAKER"*

**MORDEN MACHINES COMPANY**

PACIFIC BUILDING, PORTLAND 4, OREGON

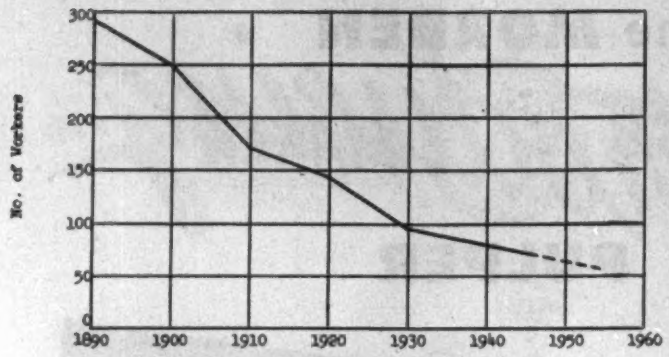



Figure 1—Number of Workers per Engineer—U. S. Industry.

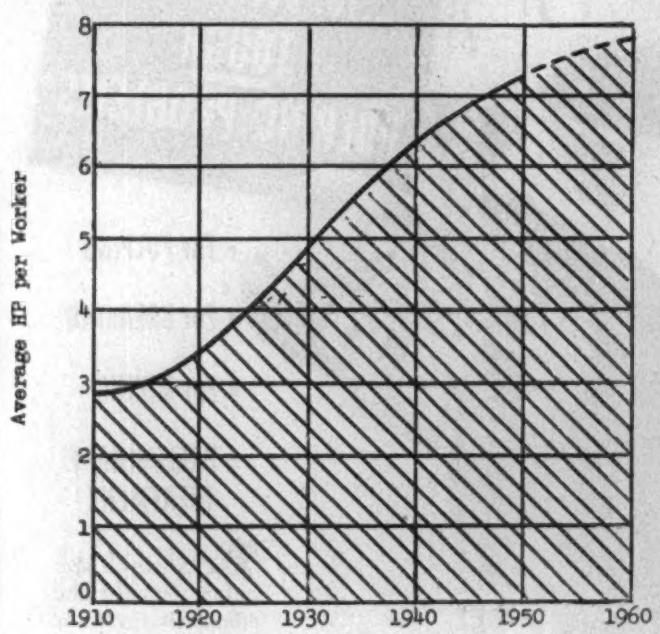



Figure 2—Increase in Power Used by American Production Workers.

understand the contributions of science and engineering. The general public seems to accept them. This same public now expects continuing technical improvement without, I believe, understanding what is one of the basic foundations, i. e., strong technical planning and development plus the opportunity *in a free economy* to pit ingenuity and skill against all comers. I cannot, on a long-range basis, visualize how scientific thinking could blossom to the fullest degree in anything but a free competitive atmosphere. We must be sure that the importance of this basic ingredient is understood by the public and that every encouragement is given to young enterprising people to lend their help by studying for scientific and engineering careers. We have been deficient in selling this to the public; hence, the great decline in professional enrollment in colleges.

Our economy, our way of life, could perish of thirst if we permit a further drought of technical man-power. This is not generally understood and we simply are not getting our story across. America, its ideals, its productivity and resultant standard of living, its very continuance is the function of engineering and scientific leadership. Without superiority in technology we can be victims of superior numbers. Presentation of a program for action is the reason for this Convocation. It is up to every engineer and his Society to shoulder the responsibility for its success.

The sum total of man's material wealth equals natural resources plus human energy multiplied by tools. *Figure 2* forcefully shows how the tools at the disposal of American productive workers have increased in the past several decades. While the American worker has over 1 horsepower at his disposal to carry on his daily work, this figure will continue to increase in the future. Mechanization will continue in order for us to produce the goods and services we all like to have, as well as the equipment needed for our national security.

## FREIGHT CAR SHORTAGE

WASHINGTON, D. C.—The Chamber of Commerce of the United States outlined measures for meeting an expected stringent freight car shortage. The proposed steps are presented in an illustrated pamphlet issued by its Transportation and Communication Department under the title, "Stretching tht Freight Car Supply." The pamphlet will be widely distributed.

It told both shippers and carriers what must be done to make more cars available through efficiency in handling them, since new cars cannot be built fast enough to meet the need for car space.

Here is what shippers are asked to do:

Load cars fully.
Load, bill and unload promptly.
Load and unload six days a week.
Use no cars for storage.
Clean cars before releasing.
Try to load cars in the direction of owners' lines.

Carriers, said the Chamber, must:

Spot and pull cars promptly.
Speed up terminal and line-haul operations.
Distribute car supply efficiency.
Avoid accumulation of cars.
Repair bad-order cars promptly.
Give maximum six-day service.

Unless such steps are taken, the Chamber said, the present shortage of approximately 20,000 cars a day will increase with the fall pick-up in freight traffic. The situation at the moment is holding about even, the Chamber pointed out. Construction of new cars is hampered by material shortages, which do not show promise, said the Chamber, of being corrected.

## SURRENDERS CHARTER

OTTAWA — Mono Paper Containers Ltd., through the secretary of the company, T. M. Hunter, of Toronto, has given official notice that the company will apply to the Secretary of State of Canada for leave to surrender its charter.

# New Equipment

### Electronic Static Controls

TAKK high-speed electronic static controls have been applied to the problem of printing on vinyl-paper and and other types of film as they speed through gravure presses.

Presses were equipped with TAKK high speed electronic static controls at selected points. These units operating from any electrical outlet bombard charged sheeting with positive and negative ions and thereby eliminated the static nuisance. Results reported: no fires since installation or in over three years; printing speeds increased; sheets easily stacked after printing; improved the printing quality; operators no longer experience accidental shocks from charged sheeting.

The equipment is designed to control static on any type of material and on most types of machines even at speeds above 4000 f.p.m., and is suitable for both mild and intense static charges, it is stated.

Besides its application on gravure, vinyl and textile printing, these static controls are employed where highly volatile solvents are present in rubber, synthetic and plastic coating operations, in linoleum plants, on belt driven machinery, etc. The equipment is being used in areas where isopropyl acetate acetone, methyl ethyl ketone or toluol are present. It has been tested in explosive concentrations of ether, lactol spirits, naphtha, ethyl gasoline, benzene and carbon disulphide. It will not in itself cause ignition of any of the generally used volatile solvents because of its design and construction, the manufacturer claims.

Source: John Hewson Co., 106 Water St., New York 5, N. Y.

### Battery Charger for Shelf Mounting

A new motor-generator type battery charger designed to permit mounting on balconies or shelves to save vital floor space has been announced.

For charging batteries in driver-lead and small driver-ride industrial lift trucks, the new unit accommodates lead-acid batteries of 6-19 cells and nickel-iron-alkaline batteries of 10-30 cells. It is about the size of a tank type vacuum cleaner with a control box mounted on its side, weighs 190 lbs. and can be installed on a shelf measuring 6¼ x 8¼ in. Fully automatic, the unit embodies features recommended by the Industrial Truck Assn., including: automatic disconnection of charger from power line and opening of charging circuit in case of power interruption; automatic restart of charger upon resumption of power supply following an interruption; automatic control of charging rate under the Modified Constant Voltage Charging System; and automatic cut-off of battery and shutdown of charger when battery is fully charged. The single-circuit equipment operates on 3-phase, 60-cycle A-C power, and has generator-overload and motor-overload protection to guard against excessive currents.

It will be marketed through electric industrial truck manufacturers and authorized agents of General Electric Company, Schenectady 5, N. Y.

### Large Twin Hopper

A larger twin hopper for the Nestior materials handling system is announced. The new model will retain the nesting and tiering features of the original twin hopper but will have more than twice the capacity. Each one is 22⅝ inches long, 7¾ inches deep, and 12⅛ inches wide.

Made of 16 gauge steel and designated as Model 220, the device can be used for economical supply of small parts to the production line. It may also be used for interplant parts handling, requiring only one-sixth the space for return of empties as when loaded. An adapter is used to hang the hopper from monorail conveyors. Completely open at the top, it may be used with two operators working side by side. Stockmen can quickly determine when stock needs replenishing. When tiered, the hopper can be loaded from one end as parts are withdrawn from the other, thus eliminating racks. When not in use, fifty units can be nested in a 62¾-inch stack.

Made by Charles William Doepke Mfg. Co., Rossmoyne, Ohio.

### Electronic Scale

By the use of electronics cells a revolutionary weight determination instrument has been created. Known as the Ametron Scale, it will record and print on ticket, tape, or even a ledger remote from the scale, the exact weight. Thus the superintendent can read the weight in his office the same instant the products are being weighed in the shipping department. The weighmaster sitting at his station can read the weight of the shipment being made in the yards down the track.

The load on the electronic scale is measured by B-L-H precision load cells. The signal from the load cells, which is proportional to the weight on the scale, is amplified and actuates an error sensitive servo-mechanism. The indicating instrument is a full figure step cam controlled recorder. It includes provision for multiple ranges

### BREAKER TRAP

A machine for the selective defibering of pulps and waste papers and which also removes tramp metal efficiently is called the Breaker Trap. The unit is rated to handle up to 350 tons per day, and to use from 50 to 200 hp. Normally installed between the pulp storage and subsequent equipment, and operates at the capacity of the following equipment. Considerable savings in power result from its use, it is claimed. A descriptive folder is available on request to Sutherland Refiner Corp., Trenton, N. J.

10,000 pounds capacity crane scale in use. The complete crane scale may be easily removed from the main crane hook when desired. The take-up reel is specifically designed to eliminate slip rings between the load cell and the indicating mechanism. The indicator is mounted in the cab with the operator.

to give increased capacity with high sensitivity and accuracy. Both the load cells and instruments are designed to operate over wide ranges of temperature. Provision is included in standard recorders to compensate for tare loads.

The weighing system may be designed to operate with any number of load cells. Ticket, card and ledger sheet printers are available to meet various requirements. Dials, special printers, and other accessories are available. There also are several types of recording instruments available to meet various operating conditions.

Brochure available from Streeter-Amet Co., 4101 Ravenswood Ave., Chicago 13, Ill.

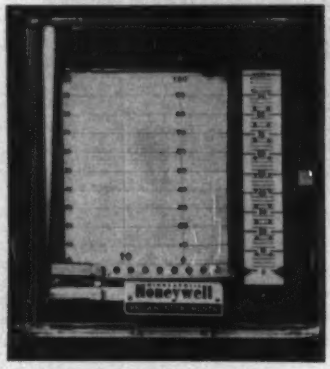
### Tel-O-Set Controller

A new instrument, designed to provide sensitive, instantaneous and accurate control of flow, temperature, pressure, liquid level and other industrial process variables is announced.

The device, the Tel-O-Set controller, is described as the latest component in a series of new devices designed to improve process control. The other components of the group are the differential converter, Tel-O-Set indicator and Tel-O-Set recorder. The controller was developed for use with the other three components. In addition to its extreme sensitivity and rapid response to process change, the controller operates on a pneumatic balance principle which is said to eliminate friction and lost motion.

The new model is made in two types, one with fixed proportional band, the other with adjustable proportional band. The units are constructed of a number of coded, interchangeable sections separated by diaphragms. Except for manual adjustments of reset on the band unit, the Tel-O-Set controllers operate wholly in response to pneumatic signals.

Write to Minneapolis-Honeywell Regulator Co., Brown Instruments Div., Wayne and Roberts Aves., Philadelphia, Pa.




### Automatic Control Equipment

The new Fielden ARC-1 Automatic Control provides a continuous indication and record of the process variables and automatically controls the machine to correct for any deviation from the desired control point. The instrument may be set up to ignore momentary deviations, then make corrections which are proportional to the deviation from the desired control point at time intervals automatically adjusted to suit machine or process speed.

Particularly adapted to continuous drying processes, the equipment is simple to install. Push buttons for manual control are provided on the instrument panel and additional push buttons may be installed elsewhere when required. Pilot lights indicate when the process variable is within tolerance limits or above or below the control point, also when a correction is being made.

Available from Fielden Instrument Corp., 2920 N. Fourth St., Philadelphia 33, Pa.

## LOAD INVERTER ATTACHMENT

The new load inverter attachment can be adapted to any operation that requires the regular inverting of palletized loads, the manufacturer states.

Idea of the attachment is to provide a method of inverting unit loads quickly, without taking them from their pallets, an operation often necessary to interrupt the natural settling action of a product.

The attachment consists of a revolving head and a set of top-and-bottom forks, with a plywood backstop and a side retaining board. To invert a load, the operator moves his truck in, with the attachment positioned so that the plywood retainer is in a vertical position. An empty pallet is carried on the top forks of the attachment. After lifting the load out of its storage spot, the operator turns the load 180°, using the revolving head. As the load revolves, it is kept in position by the retaining board until it has made the 180° turn. When it has completed the turn, the inverted load shifts to the empty pallet and is put back in storage.

The attachment, which can be quickly installed on any Baker 3000 or 4000 lb. capacity fork truck, is marketed by Baker Industrial Truck Div., Baker-Rauling Co., 1250 West 80th St., Cleveland 2, Ohio.

## CONTRACTORS FOR ELK FALLS

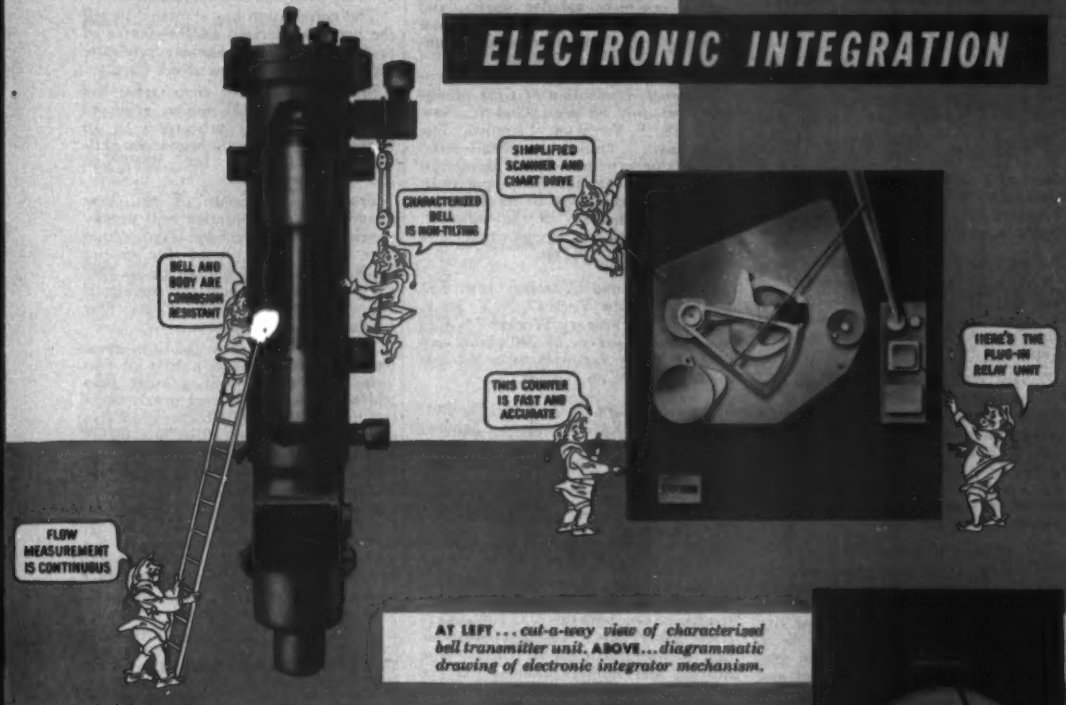
OTTAWA — Contractors for the Elk Falls Co., Ltd., pulp plant, Duncan Bay, Vancouver Island, B. C., estimated to cost approximately $22 million, are Northern Construction Co., Bennett & White Construction Co., and B. C. Bridge & Dredging Co. The latter company is also responsible for erecting the wharf and other facilities.

*Important Contribution to Flow Measurement and Accounting*

# *The New*

## Brown Electric Flow Meter *incorporates . . .*

## ELECTRONIC INTEGRATION


SIMPLIFIED SCANNER AND CHART DRIVE
CHARACTERIZED BELL IS NON-TILTING
BELL AND BODY ARE CORROSION RESISTANT
THIS COUNTER IS FAST AND ACCURATE
HERE'S THE PLUG-IN RELAY UNIT
FLOW MEASUREMENT IS CONTINUOUS

**AT LEFT** . . . *cut-a-way view of characterized bell transmitter unit.* **ABOVE** . . . *diagrammatic drawing of electronic integrator mechanism.*

**EVENLY-DIVIDED CHART** . . . *provides easy readability for all rates of flow. Write for new Bulletin No. 293-1.*

HERE'S another important advancement for power and process instrumentation...continuous flow measurement, with electronic integration!

This Honeywell development eliminates intermittent measurement and slow, complicated totalizing . . . welcome news to process engineers and accountants.

The electronic integrator, consisting of but three major parts, simplifies accessibility and maintenance . . . permits quick checking and calibration. Scanning is rapid and extremely simple. The corrosion resistant meter body is of tubular construction, reducing weight and bulk. Electrical transmission permits remote, continuous recording of flow...and flow is easily totalized under all conditions. The characterized bell is corrosion resistant, too, and is specially designed to eliminate tilting.

Call in our local engineering representative for a discussion of your application.

MINNEAPOLIS-HONEYWELL REGULATOR Co., *Industrial Division*, 4510 Wayne Ave., Philadelphia 44, Pa.

MINNEAPOLIS
**Honeywell**
*Brown Instruments*

## NEW LITERATURE

*Allis-Chalmers Mfg. Co.*, Milwaukee 1, Wis. Bulletin 05B7682, "Allis-Chalmers Totally-Enclosed Motors With Air-To Water Heat Exchangers." Sales plus technical copy.

*American Forest Products Industries, Inc.*, 1319 18th St., N.W., Washington 6, D. C. Brochure, "Bibliography of Forest Industry Educational Materials." Lists booklets, motion pictures, posters, filmstrips, leaflets and other educational materials made available by individual forest industries. Tells how to order.

*Dee Carlton Brown*, 1500 Walnut Street Building, Philadelphia 2, Pa. Bulletin, "The Sutherland Breaker Trap For Selective Defibering and Tramp Metal Removing." Describes and illustrates.

*Burrell Corp.*, 2223 Fifth Ave., Pittsburgh 19, Pa. Bulletin No. 322, "Frigidaire Electric Dehumidifier." How it works and its advantages.

*Clark Equipment Co.*, Battle Creek, Mich. Booklet, "Basic Facts About Materials Handling." Also discusses the latest equipment in the materials handling field and how to figure costs of its use.

*Dexter Chemical Corp.*, Boulevard P. O. Box 1, New York 59, N. Y. Folder, "Detergents." Evaluation of detergents by chemical analysis. Use of builders and sequestering agents in detergents. Differences between anionic, cationic and nonionic detergents, surface tension, standard soiled cloth, and other physical tests.

*Dings Magnetic Separator Co.*, 4740 W. Electric Ave., Milwaukee 46, Wis. Bulletin, "Dings Certified Magnetic Separation." Tells which magnets to use to remove iron from wet or dry materials carried on conveyor belts, as well as from chutes, ducts, etc. Units for magnetic concentration and purification heavy media recovery and materials handling also described.

*Elwell-Parker Electric Co.*, 4205 St. Clair Avenue, Cleveland 3, Ohio. Brochure, covering high lift and low lift platform trucks, fork trucks and mobile cranes. Lift capacities and dimensional specifications on each class of truck. Copies available gratis.

*Eutectic Welding Alloys Corp.*, 40-40 172 St., Flushing, New York, N. Y. Chart, containing detailed specifications on close to 200 metal joining alloys including Bonding Temperatures, Tensile Strength, Recommended Uses, etc. Available gratis.

*Machinery and Allied Products Inst.*, 120 South LaSalle St., Chicago 3, Ill. Brochure, "Mapi Replacement Manual." A scientific approach to re-equipment analysis for the buyer, seller, for professionals and colleges.

*Minneapolis-Honeywell Regulator Co.*, Wayne and Windrim Aves., Philadelphia 44, Pa. Instrumentation Data Sheet 2.9-18a. "Measuring Tank Control System for Alkaline Digesters in Pulp Plants." Includes drawing and description of the operation of the control system as well as an installation photograph.

*Morse Chain Co.*, 7601 Central Ave., Detroit 8, Mich. Bulletin, "Morse Morflex Radial and Universal Driveshafts." Gives complete data and specifications on Morflex Radial Driveshafts with spline-jointed tubular shafts, one-piece tubular shafts, and spline-jointed tubular shafts. Also a working table of maximum recommended lengths and speeds.

*National Association of Glue Manufacturers, Inc.*, 55 West 42nd St., New York 18, N. Y. Book, "Animal Glue in Industry." Outlines in detail satisfactory, proven methods as developed through the years for the proper utilization of animal glue in its principal areas of application in the adhesive, sizing and coating, composition, and colloidal fields. 101 pp.

*Paper Cup and Container Inst.*, 551 Fifth Ave., New York 17, N. Y. Book, "Feeding the Factory Worker." Gives findings of a survey of 240 plants and visits to many factories using various methods. Free on request.

*Read Standard Corp.*, York, Pa. Bulletin 51759, "Read Standard Chemical Processing Equipment and Standardaire Blowers." Technical plus sales copy.

*Towmotor Corp.*, 1226 East 152nd St., Cleveland, Ohio. Film, "What Makes It Tick?" Provides essential information to industry on the planning, designing and engineering incorporated in the building of Towmotor trucks. Also, bulletin No. 108, "Certified Job Study." Valuable information to manufacturers of valves, pipe fittings, and similar products, on the savings that efficient materials handling methods make possible.

## FINANCIAL

*Minnesota and Ontario Paper Co.* have declared a quarterly cash dividend on its common stock of fifty cents per share to stockholders of record at the close of business on September 28, payable on October 25, 1951.

*Mersey Paper Co., Ltd.*, has declared a dividend of $1 on common, payable November 1 to stockholders of record October 20.

*National Container Corp.* approved an increase in its authorized capital from 4 million shares of common stock, par value $1, to 4,480,000 shares, consisting of 4 million common shares and 480,000 shares of $1.25 convertible preferred stock of $25 par value.

This action set in motion a $32 million financing program for major expansion of the company's production facilities under a government Centificate of Necessity.

The corporation plans to construct a 500-ton per day kraft pulp, board and paper mill to be located near Valdosta, Ga., which will add more than 50 percent to its annual mill production capacity. The Certificate of Necessity will permit the corporation to amortize 60 percent of the cost of the new mill, not in excess of $23,-165,000, over a five-year period.

The corporation has arranged to sell the newly-authorized 480,000 shares of preferred stock to a banking syndicate headed by Van Alstyne, Noel Corp.

Simultaneously, the corporation has arranged to sell $20 million principal amount of 15-year debentures to an underwriting syndicate headed by Halsey, Stuart & Co., Inc., and Van Alstyne, Noel Corp.

From the proceeds of the new financing, the corporation will prepay an existing loan held by Metropolitan Life Insurance Co. in the face amount of $6,175,000, plus premiums, so that the program represents the raising of approximately $25 million net new funds by the corporation.

The new mill is expected to be completed within one and a half to two years. National's four present pulp and board mills produced nearly 300,-000 tons in 1950. The corporation also operates twelve corrugated box plants in various parts of the United States and a paper bag plant with its adjoining mill.

The corporation had outstanding, prior to the proposed new financing, 2,752,482 shares of common stock, for which it showed net profits of $5,-870,000, or $2.13 per share in the first six months of 1951. Sales in this half-year exceeded $39 million.

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### GETS MANDO FELLOWSHIP

The School of Forestry announced today that Roland E. Schoenike, a 1951 graduate of the University of Minnesota School of Forestry, has been awarded the Minnesota and Ontario Paper Co. Graduate Research Fellowship in Forestry for 1951-52.

Established in 1946, the Mando Fellowship provides for studies concentrated on forestry problems meriting special attention. This year's Fellowship, said Dr. Kaufert, Director of the School of Forestry, will be used to continue the previously initiated study of reproduction on recently cut-over State and private lands and to begin an investigation of the regeneration status of uncut black spruce swamps.

The results of these studies will be made available to the public and should be helpful to foresters, public owners of forest lands, and private owners in determining desirable cutting practices.

# PRICES

**The prices below reflect market quotations in New York at the mill level on standard grades. Does not include spot offerings.**

## PAPER AND BOARD

**Standard News, Delivered Ports**

| | |
|---|---|
| Rolls, contract, per ton | $114.00/116.00 |
| Sheets | 130.00/ — |

**F.o.b. Mills. C.l. Frt. allowed, dock, N. Y.**

**Kraft— per cwt., 40# base wgt.**

| | |
|---|---|
| Standard Wrapping Rolls | $7.75/ — |
| No. 1 Wrapping Rolls | 8.35/ 8.50 |
| Standard Bag | 7.50/ — |

**Tissue— per ream 24x36 (480) 10 lbs. 2500 lbs or more**

| | |
|---|---|
| Wh. No. 1 Frd. | $2.25 /$2.35 |
| Wh. No. 1 MG | 2.25 / 2.40 |
| Wh. No. 1½ | 1.95 / 2.05 |
| Wh. No. 2 | 1.75 / 1.85 |
| Kraft Anti-Tar 20x36 | 2.12 / 2.25 |
| White Anti-Tar 20x30 | 2.20 / — |

**Toilet— per case of 100 rolls—1 M sheets**

| | |
|---|---|
| Unbleached 4½x4½ | $8.00/$8.25 |
| Unbleached 4½x5 | 6.60/ — |
| Bleached 4½x4½ | 10.00/12.50 |
| Bleached 4½x5 | 9.85/ — |
| Per Case of 50 rolls—2000 sheets | |
| Unbleached 4½x4½ | $8.00/$9.75 |
| Bleached 4½x4½ | 6.95/ — |
| Per Case of 100 rolls—1000 sheets | |
| Facial, 4½x5, 2-ply | $8.95/10.65 |

**Paper Towels— per case of 3750**

| | |
|---|---|
| Wh. Jr. M'tif'd 9½x9½ | $6.40 |
| Br. Sr. M'tif'd 9¼x12 | 4.10 |
| Br. Jr. M'tif'd 9½x9½ | 3.90 |
| Br. Jr. Sgl. fold 9½x10¾ | 3.95 |
| Bkbd. 7½x11, 24/25 rolls | $7.00/7.55 |

**Manila, per cwt.**

| | |
|---|---|
| No. 1 Jute Tag, 100-lb., sheets* | $20.55/22.55 |
| Reg. Jute M.F., 40-lb., sheets* | 19.50/21.50 |
| Wrapping Manila | 8.75/10.50 |
| Printing Manila | 10.50/12.00 |

* Less usual allowance for rolls.

**Gummed Tape— per bdl., 500 bdls. or more**

| | |
|---|---|
| 90-lb. 375 ft. GSI | $7.20 / — |
| 60-lb. 600 ft. GSI | 7.20 / — |
| 35-lb. 800 ft. GSI | 8.28 / — |
| 35-lb. 500 ft. GSO | 6.21 / — |

## MARKET WOOD PULP

**Third Quarter Contract Prices, Per Short Air-Dry Ton**

| | Varying freight allowances | | On Dock Atlantic Ports | | |
|---|---|---|---|---|---|
| | *U. S. | Canadian | *Swedish | *Finnish | *Norwegian |
| Groundwood | $92.50/ — | ‡$95.00/100.00 | | | |
| Sulfate, Bleached | 145.00/ — | 190.00/200.00 | $230.00/ — | $230.00/ — | $230.00/ — |
| Semi-bleached Sulfate | 140.00/ — | | | | |
| Sulfate, Unbl. | 132.50/ — | 145.00/175.00 | 200.00/ — | 200.00/ — | |
| Sulfite, Bkbd. | 140.00/ — | 160.00/175.00 | 225.00/ — | 225.00/ — | 225.00/ — |
| Sulfite, Unbkbd. | 132.50/ — | 150.00/160.00 | 200.00/ — | 200.00/ — | |
| Sulfite, Unbl'd (Glassine) | | 164.00/ — | | | |
| Soda, Bkbd. | 140.00/ — | 155.00/160.00 | | | |
| Sulfite Screenings | 72.50/ — | | | | |
| Sulfate Screenings | 67.50/ — | | | | |
| Groundwood Screenings | 60.00/ — | | | | |
| Unbkbd Sulfate Siderurgs | 132.50/ — | | | | |
| Stand. News. Siderurgs | 92.50/ — | 106.00 — | | | |

* OPS Ceiling, CPR 49 ‡ F.o.b. Shipping Point.

**Boards per ton—**

| | |
|---|---|
| Filled News | $107.50/ — |
| Plain Chip | 105.00/107.50 |
| Bkbd. Mla. L.d. Chip | 147.50/ — |
| White Pat. coated .020 | 170.00/ — |
| Kraft Liners 42 lb. | 115.00/117.50 |
| Kraft Corr. .009 | 122.50/126.00 |
| Binders Boards | 137.50/140.00 |

The following prices are representative distributors' resale prices:

**Rag Content Bonds and Ledgers—**
White, 20 lb.

| Bonds | 4 Ctns. |
|---|---|
| | per cwt. |
| 100% Rag Ex. No. 1 | $70.45/$73.90 |
| 100% Rag | 62.65/ — |
| 75% Rag | 48.15/ — |
| 50% Rag | 38.90/ — |
| 25% Rag | 31.65/ 33.00 |

| Ledgers | 4 Ctns. |
|---|---|
| | per cwt. |
| 100% Rag Ex. No. 1 | $72.65/$73.90 |
| 100% Rag | 63.90/ — |
| 75% Rag | 49.40/ — |
| 50% Rag | 40.20/ — |
| 25% Rag | 33.00/ 34.30 |

**Sulphite Bonds and Ledgers**
White, 20 lb.

| Bonds | 4 Ctns. |
|---|---|
| | per cwt. |
| Watermarked | $19.00/$20.50 |
| Plain | 18.40/ 19.90 |

| Ledgers | 4 Ctns. |
|---|---|
| | per cwt. |
| Watermarked | $20.30/$21.90 |
| Plain | 19.35/ 20.80 |

**White Book**

| | Conversion Coated | Case |
|---|---|---|
| | | per cwt. |
| No. 1 | | $23.90/$24.65 |
| No. 2 | | 22.15/ 23.40 |
| No. 3 | | 21.90/ 22.40 |
| | Machine Coated | |
| No. 1 | | $18.40/$18.90 |
| No. 2 | | 16.65/ — |
| | Uncoated | |
| No. 1 Antique (Watermarked) | | $18.65/$19.65 |
| Offset | | 18.65/ 19.90 |
| A Grade E. F. | | 18.10/ 19.90 |
| A Grade S. C. | | 18.65/ 19.40 |
| B Grade E. F. | | 18.40/ — |
| B Grade S. C. | | 17.40/ 19.15 |

‡ Indicates a price change.

## WASTE PAPER MARKET

**The following quotations were gathered from major dealers in each market. They are an indication of the price range in which volume tonnage was moving on the date specified. Prices to mills, per ton, f.o.b. cars shipping point (includes brokers' fee.)**

| | New York | Philadelphia | Boston | Chicago |
|---|---|---|---|---|
| | Sept. 20 | Sept. 20 | Sept. 22 | Sept. 21 |
| No. 1 Mixed Paper | $14.00/ 17.00 | $14.00/ — | — /$15.00 | $15.00/ — |
| Buxboard Cuts | 20.00/ 25.00 | 14.00/ — | 23.00/ — | 18.00/ — |
| Mill Wrappers | 20.00/ 30.00 | 18.00/ — | 20.00/ — | 18.00/ — |
| No. 1 News | 16.00/ 19.00 | 15.00/ 17.00 | — / 17.00 | 18.00/ — |
| Over-issue News | 24.00/ 25.00 | 21.00/ 24.00 | 22.00/ 24.00 | 21.00/ — |
| Corrugated Containers | 30.00/ 34.00 | 27.00/ 28.00 | 29.00/ 34.00 | 28.00/ 30.00 |
| New Corrugated Cuts | Nominal | 29.00/ 30.00 | 45.00/ 55.00 | 35.00/ — |
| Double Kraft Ld. Corr. Cuts | 90.00/ — | 75.00/ 80.00 | 90.00/110.00 | 90.00/ — |
| 100% Kraft Corr. Cuts | 120.00/ — | 110.00/115.00 | 110.00/ — | 110.00/ — |
| Used Sugar & Flour Bags | 85.00/ 90.00 | 65.00/ 70.00 | 65.00/ 96.50 | 35.00/ — |
| No. 1 Brown Kraft Paper | Nominal | 70.00/ 75.00 | 70.00/ 90.00 | 35.00/ — |
| Super Reserted Br. Kraft | Nominal | 80.00/ 85.00 | 80.00/105.00 | 75.00/ — |
| New Br. Kraft Env. Cuts | 150.00/160.00 | 135.00/ — | 140.00/160.00 | 120.00/ — |
| New Br. Kraft Cuts | 150.00/155.00 | 120.00/125.00 | 130.00/160.00 | 110.00/ — |
| No. 1 Gdwd Shvs. | 65.00/ 75.00 | 50.00/ 55.00 | 65.00/ 75.00 | 40.00/ — |
| White Newsblanks | 80.00/ 90.00 | 65.00/ 70.00 | 70.00/ 80.00 | 60.00/ — |
| No. 1 Flyleaf Shvs. | 75.00/ 80.00 | 65.00/ 70.00 | 85.00/100.00 | 85.00/ — |
| No. 1 Soft Wht. Shvs. | 150.00/170.00 | 155.00/160.00 | 165.00/185.00 | 150.00/ — |
| Super Soft Wht. Shvs. | 180.00/190.00 | 165.00/170.00 | 180.00/200.00 | 160.00/ — |
| Hd. Wht. Shvs. | 175.00/200.00 | 175.00/180.00 | 180.00/205.00 | 170.00/ — |
| Hd. Wht. Env. Cuts | 200.00/210.00 | 190.00/210.00 | 190.00/225.00 | 180.00/ — |
| New Manila Env. Cuts | 140.00/145.00 | 130.00/140.00 | 130.00/155.00 | 80.00/ — |
| Col. Tab Cards | 105.00/110.00 | 95.00/100.00 | 85.00/110.00 | 95.00/ — |
| Manila Tab Cards | 160.00/170.00 | 155.00/160.00 | 160.00/190.00 | 165.00/ — |
| No. 1 Mixed Ledger | 90.00/ 95.00 | 80.00/ 85.00 | 77.00/100.00 | 95.00/ — |
| White Ledger | 110.00/115.00 | 105.00/115.00 | 105.00/120.00 | 120.00/ — |
| No. 1 Book & Mag.† | 37.00/ 45.00 | 30.00/ 40.00 | 30.00/ 50.00 | 17.00/ — |
| No. 1 Rep'd. Hvy. Bookst | 43.00/ 50.00 | 41.00/ 47.00 | 45.00/ 60.00 | 40.00/ — |

† Includes Time & Life; no coarse groundwood. ‡ Not to exceed 10% groundwood.

## RAG MARKET

**New Domestic Cotton Cuttings**
OPS Ceiling Price, CPR 28
Delivered Mill Basis

**Add 7½% Dealer Commission**

| | |
|---|---|
| No. 1 White Shirts | $21.00 |
| No. 1 Unbkbd. Muslins | 21.00 |
| Bkbd. & Unbkbd. Underwears | 21.00 |
| Bkbd. Canton Flannels | 21.00 |
| No. 1 Light Silesias | 14.00 |
| No. 1 Light Prints | 11.50 |
| No. 1 Blue Overalls | 14.50 |
| Suntan Khakis | 11.50 |

**Add 10% Dealer Commission**

| | |
|---|---|
| Fancy Shirts | $10.00 |
| Indigo Blues | 10.00 |
| Mixed Khakis | 8.00 |
| Corduroys | 8.00 |
| Cottonades | 8.00 |
| No. 1 Washables | 6.00 |

**Old Domestic Cotton Rags**
(Prices to Dealers, f.o.b. Ship. Pt.)

| | Per 100 lbs. |
|---|---|
| Mixed White | $5.00/$5.50 |
| Cotton Pants & Overalls | 4.25/ 5.00 |
| Thirds and Blues, Reposbed | 4.00/ 4.25 |
| No. 1 Roofing Rags | nominal |
| No. 2 Roofing Rags | nominal |
| No. 3 & 4 Roofing Rags | nominal |

**Bagging**
(Prices to Dealers, f.o.b. N. Y.)
PRICES NOMINAL

| | Per 100 lbs. |
|---|---|
| Foreign Gunny | $5.00/$5.50 |
| Domestic Gunny, No. 1 | 5.00/ 5.50 |
| Heavy Wool Tares | 5.50/ 6.00 |
| Foreign Manila Rope | 8.50/ 8.75 |
| Domestic Manila Rope | 9.00/ 9.25 |
| Jute Strings | 6.00/ 6.50 |
| No. 1 Sisal Strings | 8.00/ 8.25 |
| Paper Mill Tares | 4.25/ 4.50 |
| Foreign Scrap Burlap | 4.25/ 4.50 |
| Domestic Scrap Burlap | 4.75/ 5.50 |
| Austr. Wool Pieshes | 7.50/ 8.00 |
| New Burlap Cuttings | 7.00/ 7.50 |

# MATERIALS

| | | |
|---|---|---|
| **Aluminum sulfate:** | | |
| comi. bags, wks. cwt. | 1.65 | |
| iron-free c.l. cwt. | 3.25 | |
| **Alcohol, ethyl:** | | |
| tax free, dms. c.l. gal. | 1.01 | / 1.05½ |
| dnld. East Miss. | | |
| **Alcohol, methyl:** | | |
| Synthetic, Zone 1, dms. | | |
| c.l. tk. a/id. gal. | .44 | |
| **Casein, acid prec.:** | | |
| dom. sh. pt. c.l. lb. | .28 | / .41½ |
| imp. ex. dock lb. | .29 | / .40 |
| **Caustic soda:** | | |
| c.l. wks. solid, 76%, cwt. | 3.35 | |
| bulk & grd. 100-lb. drums | 3.75 | |
| liquid 50% tanks | 2.35 | |
| liquid 70% tanks | 2.65 | |
| **China clay:** | | |
| dom. air-float. filler, c.l. wks. ton | 16.00 | |
| water-washed, comp. filler ton | 11.00 | |
| coating ton | 17.60 | /30.50 |
| imported, ex whse. short ton | 15.20 | /28.35 |
| **Chlorine:** | | |
| single-unit tanks, works cwt. | 2.70 | |
| multi-unit cwt. | 3.20 | / 4.40 |
| **Formaldehyde:** | | |
| USP, inh. dms, c.l. wks. lb. | .0625/ | .0675 |
| l.c.l., E. wks. | .0675/ | .0725 |
| **Fuel oil:** | | |
| Bunker C, No. 6 Cal. bvy tanks, refinery bbl. | 1.95 | / 2.15 |
| light bbl. | 2.00 | / 2.25 |
| **Hydrogen peroxide:** | | |
| USP, 35% chys. E. of Miss. lb. | .23½/ | .26½ |
| **Lime:** | | |
| hydrated, bags, wks. ton | 13.50 | |
| **Resin:** | | |
| B gum, drms, c.l. Savan. cwt. | 7.00 | / 9.05* |
| G, H, I, K cwt. | 8.80 | / 9.49* |
| FF, wood, do. cwt. | 6.50 | / 7.30 |

* OPS Ceiling, CPR 52.

| | | |
|---|---|---|
| **Rosin size:** | | |
| 70%, gum & pale grds, tank cars, south, sh. pt. cwt. | 7.00 | / 7.10 |
| **Salt cake:** | | |
| dom. bulk, c.l. wks. ton | 17.00 | |
| wks. frt. all. ton | 30.00 | /32.00 |
| **Soda ash:** | | |
| light, 58%, bags, wks. | 1.50 | |
| bulk cwt. | 1.30 | |
| **Sodium silicate 40°:** | | |
| turbid. c.l. wks. cwt. | 1.30 | / |
| l.c.l. wks. | 1.60 | / 1.85 |
| **Sodium peroxide:** | | |
| dms. c.l. E. of Miss. lb. | .21 | |
| l.c.l. do. lb. | .21½/ | .22 |
| **Soybean, protein:** | | |
| chem. ind, wks. c.l. lb. | .24 | / .28 |
| Cinn. and Chic. | | |
| **Sulfuric acid:** | | |
| 60° Be. chys. cl. wks. cwt. | 1.75 | / — |
| l.c.l. wks. cwt. | 2.05 | / 2.85 |
| **Sulfur:** | | |
| crude, c.l. mines, contract, long ton | 21.00 | /22.00 |
| f.o.b vessels Gulf | 22.50 | /23.50 |
| **Sulfur dioxide:** | | |
| liquid, comi. cyl. wks. lb. | .09 | |
| multi-unit cars lb. | .0535 | |
| **Starches:** | | |
| pearl corn, bags, c.l. wks. cwt. | 6.09 | / — |
| white dextrines, c.l. wks. cwt. | 7.48 | / — |
| potato, Idaho, c.l. wks. cwt. | 5.75 | / — |
| potato, Maine, c.l. wks. cwt. | 6.00 | / — |
| tapioca, conv. dextrines cwt. | 8.00 | / 8.75 |
| low, Siam, ex dock N.Y. | 5.50 | / 5.75 nominal |
| **Talc:** | | |
| domestic, 50-lb. sacks, c.l. wks. ton | 25.00 | /30.00 |
| **Titanium dioxide:** | | |
| anastase, c.l. deld., bags lb. | .21 | / .21½ |
| l.c.l. deld. lb. | .22 | / .22½ |
| rutile, c.l. deld. lb. | .23 | / .23½ |
| l.c.l. deld. lb. | .24 | / .24½ |


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# FORESTRY

## STUDY HUGE TIMBER DEAL

A company has been formed jointly by Powell River Co. Ltd. and the Aluminum Co. of Canada to study the salvage possibility on the Alcan development. Hecate Development Ltd. will study timber to be flooded out by the rising waters behind the Nechako Dam in the interior of British Columbia.

Powell River, largest B. C. pulp producer, is said to be contemplating building a mill near Kitimat to utilize this material. This is a reasonable assumption as that company already holds about 1½ billion feet in the Kitimat Valley and a further 2 billion feet on the Queen Charlotte Islands where there is no power potential. Log towing to the mainland is quite feasible, and the mill would probably be constructed near Kitimat to use the power from the huge Alcan development.

Salvage could be a low cost operation as rising water behind the dam would serve to float the logs clear, making the operation one of falling, bucking and towing. Alcan is building a cableway to the lake for its tunnel work, and this could conceivably serve double duty in log transportation outwards.

Another major move by the Powell River Co. is its announcement that negotiations are underway to acquire the pioneer lumber firm of B. C. Manufacturing Co. Ltd. The latter has a valuable management licence containing about 2 billion feet of prime Vancouver Island timber.

Integration on B. C.'s west coast seems to be a necessary step to survival these days as one large firm after another buys or merges in its effort to obtain pulp, sawmill, plywood and logging units in comparable proportions. Should Powell River acquire B. C. Manufacturing, it will enter the sawmill and lumber export business in a big way.

Other examples of similar integrations are:

The partnership between Canadian Western Lumber Co. and Pacific Mills, Crown Zellerbach's Canadian subsidiary. This arrangement forms the Elk Falls Co. which is building a $40 million newsprint mill at Duncan Bay on Vancouver Island. It also involves a large and valuable management license. Elk Falls mill is beginning to take shape. The huge wharfing facilities are scheduled for early completion, and foundation work for the main buildings is practically completed. About 1200 yards of reinforced concrete have been poured for the machine room, screen room and for the groundwood units. Production from the mill is expected to begin in mid-1952.

The merging of Alaska Pine Co., West Coast lumbering firm, with the two mills of B. C. Pulp and Paper to form the Alaskan Pine and Cellulose Co. was another major event. This move formed a partnership between the Koerner interests of Alaska Pine and the huge Canadian Abitibi pulp interests.

Canadian Forest Products, lumber, plywood and fibreboard manufacturer, purchased the old Sorg Mill at Port Mellon. Modernization of this mill is bringing efficient integration to this firm.

Probably largest of any merger is the announced plan to consolidate MacMillan interest with Bloedel interests to form the MacMillan-Bloedel Co. Ltd. Both firms offer fully integrated operations which will gain through the co-ordinated milling, marketing and utilization. The H. R. MacMillan Co. is going ahead with its $20 million expansion to the recently opened, fully modern bleached sulphate mill at Nanaimo.

## NEW USE FOR CEDAR WASTE

The campaign to utilize all forms of wood waste took a new turn recently when plans were made for manufacture of boiler compound out of cedar waste,

It is believed $500 worth of the required chemical constituents can be obtained from each ton of waste, formerly discarded and burned.

## BUCKEYE BUYS TIMBERLAND

PERRY, Fla. — The largest single tract of Florida timberland, about 440,000 acres, has been sold to the Buckeye Cellulose Corp., subsidiary of the Procter & Gamble Co., Cincinnati, by Brooks-Scanlon, Inc., Foley, Fla. The Buckeye Cellulose Corp. will build a new plant in northwest Florida for the manufacture of cellulose dissolving pulp. It is understood that the plant is to be built at the request of the National Production Authority at a cost of around $25 million. In addition to the Brooks-Scanlon property, the Buckeye company has also purchased about 125,000 acres in northwest Florida from C. Crapps & Son of Lake City. It is also reliably reported, though officially unconfirmed, that a plant site has been purchased at Boyd, north of Perry, from the Weaver-Lothridge Co., which owns the Pinellas Lumber Co., a large building supply concern at St. Petersburg.

Brooks-Scanlon, Inc., has been operating in Florida since 1918. It was primarily a timbering concern and for many years operated one of the largest saw mills in Florida, but in recent years has been conducting its large holdings on approved forest management lines and has sold most of its pulpwood to the International Paper Co.'s kraft division at Panama City. For many years Brooks-Scanlon operated a saw mill on the property now being used for the construction of the new St. Regis Paper Co.'s mill at Eastport, near Jacksonville.

Operation of the saw mill at Foley will be discontinued in about six months when the present supply of logs is used up. The village area at Foley has been acquired by Lester Foley of the Foley Lumber Co. and Associates of Jacksonville. Lester Foley will be associated in the management of the woodlands for the Buckeye company.

Buckeye Cotton Oil Co. is a subsidiary of Procter & Gamble Co. It makes cellulose pulp at its plant in Shelby County, Tenn., but it was stated here, is unable to supply the demand for cellulose, which has been greatly expanded by the requirements of the defense program.

## STUDY U. S. FOREST PROTECTION

OTTAWA—Canada will send two representatives on a United Nations-sponsored forest fire study of the United States, it is reported here, with the men being J. C. McLeod, Chief of the Forest Protection Section of the Forestry Branch at Ottawa, and T. E. Mackey, Chief of the Forest Protection Division of the Ontario Lands and Forests Department.

Forest protection experts from 25 countries will travel throughout the United States to find out the most modern methods of forest fire fighting and prevention. The tour will end in Washington on October 12.

## PINE SEEDLING SHORTAGES

TALLAHASSEE, Fla. — The Florida Forest Service has reported a severe shortage of pine seedlings. R. A. Bonninghausen, management chief, said the Forest Service has been obliged to make a 45 percent cut in all orders for more than 5000.

Up to July 1, Mr. Bonninghausen reported, a record-breaking total of 45 million seedlings had been ordered, but the top production of the two State nurseries at Olustee and Munson is not over 28 million.

Many of the pulp and paper companies and other large growers depend upon the Forest Service for the seedlings required in their reforestation programs. The Forest Service had plans for a third nursery, but the 1951 State Legislature failed to provide the money. It is pointed out that until a third nursery is established it may be necessary for managers of woodlands to grow their own seedlings. Some who have done so in the past have given it up because it has been less expensive to buy them from the State.

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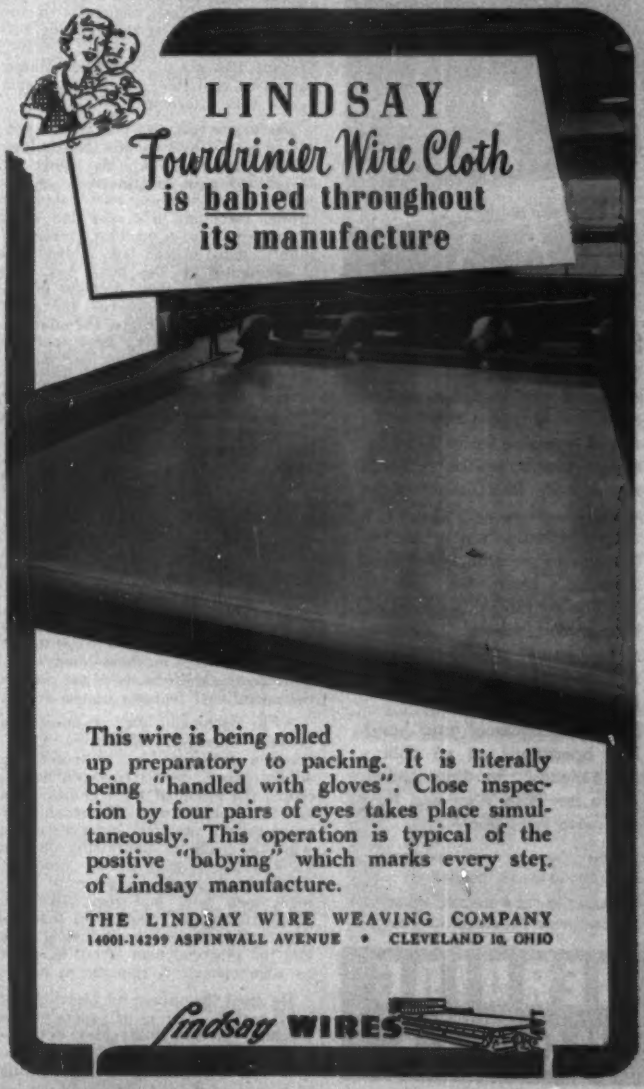
The American Tree Farm System, started in 1941, has now spread to 30 states.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# ASSOCIATIONS

## POLAND SPRING MEETING

The annual fall meeting of the Northeastern Division of The American Pulp and Paper Mill Superintendents Assn., held on September 14-15, 1951, at Poland Spring, Maine, featured two papers on the morning of September 14, a general discussion on mill problems and a business meeting that afternoon; and a program of entertainment and social get-togethers the first evening and throughout the second day.

John Coppens, Fraser Paper, Ltd., Madawaska, Maine, chairman of the Division, presided at the morning session of the first day; A. F. Tolland, Oxford Paper Co., Rumford, Maine, served as moderator of the discussion period that afternoon.

The first of the two papers was presented by D. R. Simonds, Beloit Iron Works, Beloit, Wis. He spoke at length and most informatively on the subject of a pressure inlet for fourdrinier machines. He said that from the viewpoint of a machine builder an inlet included a head box, a slice, and a distributor to the head box. He related that the chief problem in designing an inlet concerns the wide range of flows that are encountered. As examples, he cited a kraft machine with flow of 100 gallons per minute per inch of width, a tissue machine with a flow of 48 gallons per minute per inch of width, and a fine rag content machine with a flow of eight gallons per minute per inch of width.

The common requirements of an inlet, added Mr. Simonds, are: (1) minimum downtime for washups, (2) accessibility for cleaning, (3) ease and effectiveness in making adjustments, (4) freedom from corrosion, (5) compactness, and (6) uniformity of delivery.

Through the aid of several sketches he revealed the details of construction of an inlet, based on these common requirements, and discussed at length the operational features of the device.

A. E. Bachmann, vice-president and general manager, Missisquoi Corp., Sheldon Springs, Vt., presented the second paper. In his remarks, he explored the realm of the technical man and the practical man. He recalled by name certain practical superintendents who had made an impression on him as a younger man in the industry. Similarly, he recalled a group of technical men who had done likewise. Emphatically, he commented, that the difference between the technical man and the practical man is not as great as sometimes it is thought to be.

He cited the successful bleaching of kraft and the coating of papers on the machine as two marvelous developments resulting from the technical man and the practical man working together. He said that the brightness tester was strictly a technical development.

In the opinion of Mr. Bachmann, human engineering is a job of the practical man — that the practical man in carrying out his duties must collaborate extensively with the technical man.

Using a chart, he explained his concepts of the conditions under which the technical man and the practical man think and operate.

So stimulating were both papers that both speakers were deluged with questions and were highly complimented for their effectiveness. Questions relating to the inlet were carried over to the afternoon session.

Other questions that came up for consideration during the afternoon discussion period related to paper machine stock consistencies, need of improved testing methods, sheet tension and a suction sheet transfer.

All of the questions and the discussion revealed the multiplicity of interdependent variables and the reality of so much to learn of what happens on a paper machine. One commenter said that there are a lot of questions with no answers.

A brief business meeting followed the general discussion period. This meeting was highlighted by the election of officers for the Division for 1951-1952. A unanimous ballot was cast by the secretary of the Division, Mrs. Marion L. Stewart, following a vote on the procedure, for the slate of officers presented by R. M. Wishart, Oxford Paper Co., Rumford, Maine, as chairman of the nominating committee. The names of the newly elected officers follow: James M. Wishart, Oxford Paper Co., Rumford, Maine, chairman; T. M. Barry, Hollingsworth & Whitney Co., Waterville, Maine, first vice-chairman; Frank B. Harlow, Penobscot Chemical Fibre Co., Great Works, Maine, second vice-chairman; Harvey H. Wilson, Ryegate Paper Co., East Ryegate, Vt., third vice-chairman; and Mrs. Marion L. Stewart, Lincon, N. H., secretary-treasurer.

The social and entertainment features of the meeting included a soft ball game between the superintendents and the peddlers, a ladies putting contest, a golf tournament, a Little League baseball game (several of the players represented Maine in the Little League World Series played recently at Williamsport, Pennsylvania), ladies bridge and tea, dancing, and a banquet.

## N. Y.-CANADIAN SUPTS. MEET

C. E. Cole, The Mutual Boxboard Co., Utica, N. Y., was elected chairman of the New York-Canadian Division for The American Pulp and Paper Mill Superintendents Assn. for 1951-1952 at its recent fall meeting, September 6-8, at Saranac Inn, Upper Saranac Lake, N. Y. Elected with Mr. Cole were: C. B. Davies, E. B. Eddy

Co., Hull, Que. (first vice-chairman) C. E. Reynolds, Armstrong Cork Co., Inc., Fulton, N. Y., (second vice-chairman); R. E. Gray, Gotham Paper Mills, Inc., Battenville, N. Y. (third vice-chairman). H. A. Horstmann, General Dyestuff Corp., New York, N. Y., continues as treasurer; and R. S. Greene, H. Waterbury & Sons Co., Oriskany, N. Y., accepted the secretaryship, succeeding L. D. Carner of Lockport Felt Co.

The Division was favored by the Ciba Co. with an offer to donate a sterling silver golf trophy and, along with it, to put up a yearly prize to the value of $20 for the winner of the cup each year.

Saranac Inn was selected by the Division at this meeting for its fall meeting place in 1952.

The group meetings—a fine paper and tissue meeting and a paperboard and felt meeting—made up the technical sessions of the get-together. An open discussion on pitch featured the fine paper and tissue meeting. This feature proved so interesting that more than 100 persons sat in on it.

Harry S. Cutler, United Board & Carton Corp., Lockport, N. Y., is retiring chairman of the Division.

### NPTA FALL CONVENTION

The office of The National Paper Trade Assn. reports that a very large percentage of member houses will be represented at the approaching Chicago Convention, Stevens Hotel, October 4-6. An outstanding feature will be the Room Exhibit occupying the 5th and 6th floors of the Hotel for which space has been reserved for a record number of manufacturers and converters. These will be listed in a convenient Directory of Exhibits which will be available to attendants.

As usual, the preparatory session of the executive committee of the board of directors will be held on Wednesday, the preceding day, in the afternoon. The morning of Thursday, October 5, will be devoted to committee meetings for both Fine and Wrapping Paper Divisions. The opening session, Thursday afternoon, with President E. P. Magel in the chair, which is open to manufacturers and guests, will have as the principal speaker Hon. Bourke B. Hickenlooper, U. S. Senator from Iowa, a member of the Senate Foreign Relations Committee as well as the Senate Committee on Agriculture and Forestry. A prominent industry executive will speak for the manufacturers on this occasion. The board of directors will hold their semi-annual meeting Thursday evening.

Vice-President R. E. Knox will preside at the Wrapping Paper Division session Friday morning at which able speakers are scheduled on subjects of practical and timely interest to Wrapping Paper merchants. At the session of the Fine Paper Division on Friday afternoon, at which Vice-President P. M. Jones will preside, the program will include an address by Carlton F. Diskin, Division Counsel of the Office of Price Stabilization, and the meeting will be open to members of the Wrapping Paper Division who wish to hear him.

The convention will conclude with the semi-annual meeting Saturday morning marked by the regular official reports and procedure, and the always stimulating address of Congressman J. K. Javits.

## AUSTRALIAN NOTES

Australian Paper Manufacturers Ltd. earned, on doubled ordinary capital, about £650,000 for the financial year to June 30, 1951, it is announced, compared with the £361,701 of the previous 12 months. Profit is struck after providing £816,000 for taxation, £467,400 more than last year; £466,000 for depreciation (an increase of £41,208) and £25,000 for the employes' security plan. A dividend of £520,000 has been paid to the holding company, Australasian Paper & Pulp Co. Ltd.

* * *

New firms registered during the past month were: Dominion Automatic Cigarette Paper Co. Pty. Ltd., manufacturers of cigarette papers; factory, 2a Eastment Street, Northcote, Victoria. . . . Perth Paper Sales, paper distributors; office, 32 Queen Street, Fremantle.

* * *

Paper valued at £400,000 and weighing some 3,000 tons has been lying at Burnie, Tasmania, awaiting shipment to the mainland. About 250 tons of this is consigned to Western Australia where the paper shortage is exceptionally severe, and efforts are being made by the Government of that State to have the paper shipped as quickly as possible. (One of the causes of paper shortage today is the exceptionally long turn-round of shipping in all Australian ports.)

* * *

To overcome a shortage of paper for wrapping bread one Australian bakery is now issuing plastic bags or plastic wrappers to all regular customers, asking that such bags or wrappers be brought to the bakery each time bread is purchased.

* * *

The Western Australian Forests Department hopes to plant pines in an area of over 100,000 acres, and a spokesman says that such a move would "yield sufficient timber to permit the establishment of pulp and paper mills, saw mills and other industries."

* * *

The Victorian Government Statist reports that during the nine months ended March 31, 1951, imports from overseas included: (figures in paren-


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theses being imports for the nine months to March 31, 1950)—Pulp for papermaking, £663,520 (£308,696); printing papers, £2,073,863 (£1,563,977); writing and typewriting paper, £289,334 (£152,111); wrapping paper, £663,139 (£281,668); other papers, £120,131 (£626,886) and millboards, etc., £465,537 (£183,300).


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# Electronic Equipment at Ohio Boxboard

The Ohio Boxboard Co., Rittman, Ohio, has installed modern electronic equipment which will enable its machines to increase the production of high quality paper and will cut down on machine repair time.

The new equipment includes a General Electric multiple generator sectional drive with electronic-amplidyne regulators which will operate a 128-in. paperboard machine at a top speed of 550 ft. per minute, an increase of 60 percent over its former speed, according to company engineers.

Accurate tension control for the high speed machines is provided by G-E paper tensiometers, a new development, first installed at this mill. These keep a continuous check on the tension of the paper being produced by the machines. Installed at the driers and calenders, the tensiometers regulate the tension to a closer degree than is possible by human judgement control.

The sectional drive system consists of a group of seventeen individual machine drives, the engineers explained. Each of the sections — wet end and first press, second and third press, nine drier sections, and three calender and a reel or cutter sections . . . is mechanically independent of all other units. A web of folding grade boxboard is the only physical connection between sections, the engineers said, but electrical coordination provides a closely integrated machine throughout.

Each section includes one main drive motor and in some instances additional helper drives. These are controlled from a completely isolated adjustable-voltage generator, and are held in precise and accurate speed relationship with each other through a master brain consisting of an electronic-amplidyne regulating system. With one master rheostat, this system is capable of controlling the whole machine—a total of 32 drive motors ranging from 5 to 100 hp. and amounting to more than 750 hp. of adjustable speed drive. When required for maintenance, washing, or machine adjustment, however, each section may be controlled individually through all required operations from jogging to full run, it was said.

Because each section drive is supplied from its own generator, the drive is unaffected by disturbances accompanying starting and stopping of other sections or by load changes such as snap-offs. On the other hand, the engineers said, smooth adjustment of over-all speed can be accomplished while paper is on the machine.

The control panel for each section is enclosed in a separately packaged factory assembled unit. Because each section drive operates on generator-voltage control only, without change in the motor field excitation, maximum torque efficiency is assured. The drive speed is measured by a tachometer generator whose output voltage is compared against the over-all paper machine's constant reference voltage. To the extent that the tachometer generator voltage differs from the reference voltage, the electronic-amplifier responds almost instantly through an amplidyne exciter to change the generator voltage, restoring the desired drive speed.

## SUPPLIERS

HEYDEN CHEMICAL CORP. directors on September 14th authorized plans to raise in excess of $5 million new capital to cover cost of plant expansion through the sale of 53,300 shares of Convertible Second Preferred Stock, no par value, previously authorized.

Heyden plans to offer common stockholders rights to subscribe to the new Convertible Second Preferred Stock at the rate of one share of Convertible Preferred for each 20 shares of common stock held of record October 4 or such later date as the Registration Statement filed with the Securities and Exchange Commission covering the proposed issue becomes effective.

As of September 7, 1951 the expenditure of approximately $8,500,000 has been authorized by the directors for plant expansion, of which approximately $1,900,000 has been expended.

The new capital will be used to carry out the expansion program now under way to double production of the Heyden Princeton, N. J. Antibiotic Division and to increase production capacity of pentaerythritol, the base for new weather resistant, quick drying surface coatings, derivatives of tolene and other Heyden specialty products at the Garfield and Fords, N. J. divisions. The company has under consideration additional increases in production facilities which would require additional capital investment.

Heyden plans to mail warrants to stockholders immediately after the Registration Statement becomes effective. Rights to subscribe will expire fifteen days after the record date. It is planned to sell to underwriters any shares not subscribed for by stockholders. A. G. Becker & Co., Inc. and

R. W. Pressprich & Co. will head the underwriting group for the new preferred stock.

The dividend return, conversion rate, redemption price and other particulars of the new Convertible Preferred Stock have not yet been determined.

Net sales of Heyden Chemical Corp. in 1950 totaled $26,631,348 and net income after taxes was $2,293,597. In the first six months of 1951 net sales reached $15,677,670 and net income after taxes was $1,484,172.

DYE & CHEMICAL CO. OF CANADA, Kingston, Ont., has started work on an extension to its plant and laboratories at a cost in excess of $40,000 to take care of a rapid increase in sales volume. The company produces chemicals used in the paper industry. The sales of the company have more than doubled in the past five years in Canada and 97 percent of the total tonnage sold is manufactured in company's own plant in Kingston.

HEYDEN CHEMICAL CORP. and Shawinigan Chemicals Ltd., subsidiary of the Shawinigan Water and Power Co., Montreal, have decided to form a new Canadian company which will manufacture initially formaldehyde and pentaerythritol.

Heyden and Shawinigan will share fifty-fifty in stock ownership of the new company which will construct a 2 million dollar plant at a site to be selected in Canada, with annual capacity for production of 30 million pounds of formaldehyde and 3 million pounds of pentaerythritol, a solid alcohol made from formaldehyde which is the base for the new quick-drying, weather resistant paints, varnishes, resins and lacquers now specified for Navy ships, Army tanks, jeeps, bombs and hundreds of other defense uses. Production of additional chemical products is planned later.

H. W. BUTTERWORTH & SONS CO., Bethayres, Pa. have appointed Stanley W. Brooks chief engineer. Mr. Brooks was Chief Engineer of the Textile Finishing Machinery Co., Providence, R. I., when it was purchased by Butterworth in 1944. Since that time, he has been assistant sales manager of Butterworth's New England office and for the last year has worked in the engineering department at Bethayres.

LIGNOSOL CHEMICALS LTD., in which Anglo-Canadian Pulp and Paper Mills Ltd., hold a 50 percent interest, has a new $1,250,000 plant under construction in Quebec City and it is expected to be in production toward the end of this year.

MATHIESON CHEMICAL CORP., Baltimore, Md., has leased the Army's Morgantown, W. Va., ordnance works, according to an announcement by the Defense Department. The lease includes the coke ovens.

E. P. LAWSON CO., New York, has recognized the engineering achievements of Fred W. Seybold, chief engineer, by naming him assistant vice-president.

**Fred W. Seybold**

Mr. Seybold joined Lawson in 1945 after eleven years as chief engineer of American Type Founders, Inc. Prior to this position, he was chief engineer for nine years with the Seybold Machine Co.

GRIFFITH RUBBER MILLS, of Portland, Ore., has appointed Norman J. Johnson as assistant general manager.

Mr. Johnson has been with Griffith Rubber Mills for ten years. He has served as assistant treasurer since 1947. In his new position he will supervise the development of specialty rubber products as well as the lines of finished rubber goods. Mr. Johnson is a member of the nation's Rubber Industry Advisory Committee which acts as liaison between the Small Business Committee of the United States Senate and the National Production Authority.

THE NICHOLS CHEMICAL CO., LTD. has begun a $2,500,000 expansion program to double the capacity of its sulphuric acid facilities at Valleyfield, Que. Initial production from the new plant is expected by the spring of 1952. Acid will be produced by utilizing domestic sulphur-bearing ores as raw material in place of critically short elemental sulphur. This will enable Nichols to maintain maximum sulphuric acid output for industrial and defense needs without being dependent upon elemental sulphur as a raw material.

DOW CHEMICAL CO. has made arrangements to borrow up to $140 million to facilitate expansion to meet requirements resulting from orders of military need on top of heavy civilian demands, Leland I. Doan, president, reported in the company's fifty-fourth annual report.

The $140 million is in addition to the firm's expenditures for new and improved plants and equipment which have averaged $59 million annually in the last five years. Dr. Mark E. Putman has been elected by Dow Chemical Co. to the newly created position of executive vice-president. He has been with Dow since 1915 and has been a director since 1941 and a vice-president since 1942.

REICHHOLD CHEMICALS (CANADA) LTD., is building a $500,000 plant at Ste. Therese, Que., and it is to be known as the company's Eastern Division, making synthetic resins for the paper industry and others. It will be the third plant which the company has established in Canada in two years.


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## AMERICAN PAPER AND PULP ASSOCIATION'S PAPER PRODUCTION RATIO REPORT

(Production as per cent of normal capacity)

### COMPARATIVE WEEKLY SUMMARIES

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Aug. 18 | Aug. 25 | Sept. 1 | Sept. 8 | Sept. 15 |
| | 1951 | 98.2 | 100.8 | 95.3 | 78.7r | 100.3 |
| | | Aug. 19 | Aug. 26 | Sept. 2 | Sept. 9 | Sept. 16 |
| | 1950 | 100.0 | 100.6 | 99.2 | 80.0 | 103.2 |

### COMPARATIVE MONTHLY SUMMARIES

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | 92.6 | 93.6 | 96.7 | 95.4 | 96.4 | 97.7 | 83.3 | 99.8 | 96.1 | 101.0 | 99.6 | 91.3 | 95.8 |
| 1951 | 99.3 | 101.3 | 101.9 | 102.8 | 102.5‡ | 100.2‡ | 89.4‡ | 98.9‡ | | | | | |

‡ Preliminary.
r Revised.

### COMPARATIVE YEARLY SUMMARIES

| | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
|---|---|---|---|---|---|---|---|---|
| Year to Date | 87.8 | 88.8 | 100.0 | 103.4 | 96.8 | 85.7 | 95.1 | 99.2 |
| Year Average | 88.1 | 89.4 | 101.1 | 104.3 | 96.2 | 88.6 | 95.8 | |

### PAPERBOARD OPERATING RATIOS†

| | | Aug. 18 | Aug. 25 | Sept. 1 | Sept. 8 | Sept. 15 |
|---|---|---|---|---|---|---|
| | 1951 | 93 | 94 | 93 | 71 | 94 |
| | | Aug. 19 | Aug. 26 | Sept. 2 | Sept. 9 | Sept. 16 |
| | 1950 | 101 | 100 | 100 | 81 | 100 |

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | 88 | 92 | 91 | 92 | 91 | 94 | 83 | 100 | 96 | 102 | 101 | 93 | 94 |
| 1951 | 102 | 103 | 104 | 105 | 104 | 103 | 84 | 94 | | | | | |

All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

Note: The chart shows the ratio through December 1950 on the basis of 6-day capacity. Beginning with January 1950 the ratio is shown on the new basis of normal 6- and 7-day capacities by the colored line. Paperboard operating ratios continue on the basis of a 6-day week.

† Per cents of operation based on "inch-hours" reported to the National Paperboard Association.

## RANKING OF PAPER FIRMS

The Federal Trade Commission has determined the 1000 largest manufacturing corporations on a basis of total assets as of 1948. This study lists the following Paper and Allied Products Companies as they rank in a group.

International Paper Co.
Crown Zellerbach Corp.
St. Regis Paper Co.
Kimberly-Clark Corp.
Champion Paper & Fibre Co.
West Virginia Pulp & Paper Co.
The Mead Corp.
Rayonier, Inc.
Container Corp. of America
Marathon Corp.
Fibreboard Products, Inc.
Minnesota & Ontario Paper Co.
Brown Co.
Great Northern Paper Co.
Union Bag & Paper Corp.
Consolidated Water Power & Paper Co.
Oxford Paper Co.
Robert Gair Co., Inc.
Scott Paper Co.
National Container Corp.
Hollingsworth & Whitney Co.
Gaylord Container Corp.
Kalamazoo Vegetable Parchment Co.
Masonite Corp.
Hammermill Paper Co.
Puget Sound Pulp & Timber Co.
Dixie Cup Co.
Hinde & Dauch Paper Co.
Columbia River Paper Co.
Nekoosa-Edwards Paper Co.
Hudson Pulp & Paper Corp.
Sutherland Paper Co.
Southland Paper Mills, Inc.
Soundview Pulp Co.
S. D. Warren Co.
Lily-Tulip Cup Corp.
Consolidated Paper Co.
United States Envelope Co.
Oswego Falls Corp.
Rhinelander Paper Co.
Dennison Manufacturing Co.
Eastern Corp.
Central Fibre Products Co., Inc.
United States Playing Card Co.
The Eddy Paper Corp.
Shellmar Products Corp.
Riegel Paper Corp.
Chesapeake Corp. of Virginia.
United Wallpaper, Inc.
Camp Manufacturing Co., Inc.
Southern Advance Bag & Paper Co., Inc.
Northern Paper Mills.
Seneca Products Co.
Fort Wayne Corrugated Paper Co.
Sorg Paper Co.
Cornell Wood Products Co.
P. H. Glatfelter Co.
Deerskin Products, Inc.
Morris Paper Mills.
Nashua Gummed & Coated Paper Co.
American Box Board Co.
Western Tablet & Stationery Corp.
St. Croix Paper Co.

## OBITUARIES

**Lloyd T. Riches,** 62, vice-president and general manager of the Western Paper Converting Co., Salem, Ore., died September 17, after a long illness. After helping to organize the Western Paper Converting Co. in 1925, Mr. Riches joined the Hawley Paper Co. in Portland and San Francisco as sales manager. He returned to the paper converting organization and served in various capacities before becoming its manager.

**Joseph Wrench,** 74, who was associated with the Chemical Division of West Virginia Pulp and Paper Co. for 34 years before his retirement in 1946, died September 15, at Roslyn, L. I. Mr. Wrench was associated with the Electrolytic Alkali Co., Middlewich, England, from 1902 until 1912. He came to the United States in 1912 to join the Chemical Division of the paper company, which at that time operated under the name of Industrial Chemical Co. He continued with the company until his retirement in 1946, serving many years as sales manager and treasurer.

**Charles J. Kay,** who founded the Columbia Paper Co., Ltd., in 1911, died at his home in Vancouver, B. C., recently. He retired from the presidency of the company in 1945. Mr. Kay was an honorary president of the Canadian Paper Trade Assn.


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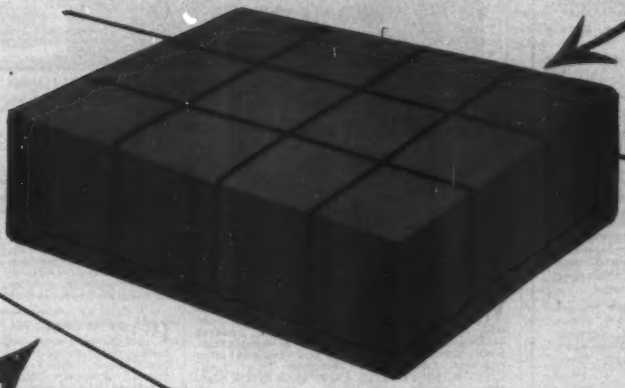

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Chemists and chemical engineers (several), one with sales personality and aptitude to develop into dyestuffs selling position; Cylinder machine tour boss, board mill; maintenance foreman; mechanical engineers, plant engineers and master mechanics, salaries $5,000-$10,000; chief power plant engineer; assistant mechanic paper box mfg. plant; industrial engineers. Beater Engineers; back tenders and machine tenders.

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If you have the qualifications we are seeking, please write Box 51-486, Paper Trade Journal, giving us a complete resume of your background. Salary open. Address Box 51-486 care Paper Trade Journal. O-5

### RESEARCH DIRECTOR

Career opportunity for chemical engineer or chemist to establish and head up research department responsible for product improvement, also new product development, also process development of three paper mills producing kraft and sulphite converted products. Box 51-488 care Paper Trade Journal.

O-19

WORKING SUPERINTENDENT for small fast growing Eastern mill making lightweight specialties. Cylinder machine experience essential. State qualifications and salary expected. Address Box 51-87 care Paper Trade Journal. TF

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### WANTED

A man experienced and fully capable for small, growing Bag Department in Eastern paper mill. Should be experienced in adjusting and production on new Potdevin Notion Bag Machines. A fine opportunity for growth and advancement for the right man. Location is ideal for living and education. Address replies Box 51-491, c/o Paper Trade Journal. O-19

### WANTED—SALESMAN NEW YORK CITY

To sell high grade waste paper to pulp and paper mills. We are willing to train a man with experience in waste paper and pulp internally at a paper mill to gradually buy and sell.

Send full details in first letter.
Address Box 51-484 care Paper Trade Journal. S-28

### WANTED

MECHANICAL ENGINEER for three-machine pulp and paper mill. Fine opportunity for young, aggressive and experienced engineer who can handle Maintenance and his department efficiently. Ideal living conditions for family and education. Address Box 51-492, c/o Paper Trade Journal. O-19

WANTED — Machine Tenders and Back Tenders for corrugating medium and liner mill. Fourdinier and cylinder machines. Located in Western Pennsylvania; good working conditions; pleasant surroundings and very good labor relations. Call collect—Tarentum 1470, TARENTUM PRODUCTS CORPORATION, Tarentum, Pa. TF

WANTED — SALES ENGINEER — Experienced in Pulp and Paper Mills, for sales and service work in the South. Excellent opportunity with old established machinery manufacturer. In reply give resume of education, experience and current salary. Address Box 51-482 care Paper Trade Journal. O-12

WANTED—Experienced Foreman to take charge of converting department in paper mill manufacturing toilet paper, towels and napkins, located in the East. Must be familiar with the equipment and obtain steady production. Pleasant surroundings in small community. Address Box 51-494 care Paper Trade Journal. O-5

MECHANICAL ENGINEER — Midwest glassine and greaseproof mill desires a young mechanical engineer to work as project engineer. Five years pulp or paper mill experience desirable but not essential. Permanent. Write Rhinelander Paper Company, Rhinelander, Wisconsin. O-5

## HELP WANTED

SALARIED POSITIONS $3,500 to $35,000. We offer the original personal employment service (established 41 years). Procedure of highest ethical standards is individualized to your personal requirements. Identity covered; present position protected. Ask for particulars. R. W. BIXBY, INC. —117 Dun Bldg., Buffalo, 2, N. Y. TF

WANTED—Master Mechanic or Assistant for modern 3-Machine Tissue Mill. Progressive management; expansion program now under way. Fine opportunity for young/middle aged man to advance. Substantial paper mill mechanical experience with electrical background desirable. Give complete resume of experience in letter to Box 51-442 care Paper Trade Journal. Replies held strictly confidential. TF

ONE MACHINE Midwestern fine paper mill has opening for Superintendent of Receiving, Finishing and Shipping. References required. Address 51-468 care Paper Trade Journal. S-28

OLD ESTABLISHED PAPER CONVERTER primarily in fancies, desires sales personnel for metropolitan New York, Chicago and New England territories. Submit fullest details in first letter. Include salary requested. Address Box 51-483 care Paper Trade Journal. S-28

## SITUATIONS WANTED

WALLBOARD ENGINEER—with graduation from Swedish technical college and with 8 years experience in the Swedish wallboard industry/insulation, hard, ultra hard, desires responsible position. Address Box 51-473 care Paper Trade Journal. O-5

PLANT MANAGER—Paper and Board and their conversion; wants challenging opportunity. Highly successful in organization; administration; labor relations and high level production. Presently employed. Address Box 51-463 care Paper Trade Journal. S-28

CHEMICAL ENGINEER—20 years technical and management experience, paper coating, coated abrasives, coating and converting machinery, resins and specialties. Desire technical or production position with established company. Address Box 51-471 care Paper Trade Journal. O-12

SALES REPRESENTATIVE—with twenty-five years as General Superintendent making fine papers. B. S. Degree. Personality and understanding of mill problems qualifies for representing firm supplying paper mills. Go anywhere, but prefer East. Best of references as to character, ability and industry. Address Box 51-466 care Paper Trade Journal. S-28

BEATER FOREMAN—Age 35. 15 years practical experience on Book, Bond, Lightweight Specialties from bleached and unbleached sulfite, kraft and de-inked papers. Expert on colors and stock preparation. Excellent references. Available on 30 days notice. Address Box 51-485 care Paper Trade Journal. S-28

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**FOR SALE**—64" Seybold Paper Cutter; 36" and 62" Cameron Slitter/Rewinder; 6" Brightwood; Int'nl. Folding Box Gluer; 30" and 44" Hartford Platen Die Cutter; 72" S & S Rotary Slitter/Creaser; Knowlton Spiral Tube Winder & Recutter like new; Complete Set-up Box Machines. Write for listings and prices. Address Box 51-467 care Paper Trade Journal. TF

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### FOR SALE

**Three Trimby 72" Rotary Knotters, Stainless Steel Plates.**
**One Oliver Young type 8' x 8' Vacuum filter.**
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**One Impco 8' x 6' Washer Thickener for tile vat with separately driven repulper.**

**Address Box 51-481 care Paper Trade Journal**

O-12

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**FOR SALE**—Guyton Cumfer Guillotine Strawboard Cutter, 14' blade. Address Box 51-497 care Paper Trade Journal. O-5

**FOR SALE**—2 Bird Stainless Steel Pulp Screens, 30" long. Address Box 51-461 care Paper Trade Journal. S-28

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1—Dilts 750 lb. Iron Tub. Roll 44" face x 20" diameter.
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37 feet 5" 10 ply Goodyear Rubber Cotton.
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46 Chilled Iron Rolls—Assorted sizes.

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1—6 roll—62".
1—6 roll—62". All rolls bored for steam.
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1—Black Clawson 54" Combining Machine with 4—48" diameter and 1—54" diameter Dryers. Motor, pumps, tanks, etc. Complete.

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1—19½ ft. long x 20" wide—with motor.

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3—124" face x 48" diameter.
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1—60" face x 120" diameter.
1—110" face x 40" diameter, with bearings.
3—110" face x 42" diameter with bearings and gears.
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10—60" face x 48" diameter, with gears, bearings and steam joints.
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1—116" face x 48" diameter.
1—106" face x 48" diameter.
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1—Thorpe 200 ton. Steam platens. 48"x48" with pump.

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1—20 Niagal, for motor drive.
1—Jones Majestic, with base and couplings—
1—24 Appleton with base and couplings.
1—Jones Majestic. Stainless Steel Fittings.
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200—Brass and steel carrying rolls.

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1—Moore & White Simplex 114" Sheeter with slitters—counter, Manin layboy overlapping delivery. 8 roll backstand, motor and starter.
1—40" Kidder Spot Sheeter.
1—42" Dexter Dillon with 12 roll Rook Stand.
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1—American 27" Hammermill, anti-friction bearings.
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1—Beloit 120" Paper Machine Slitter and Rewinder—40" rewind.
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1—De Laval 220 h.p. initial pressure 140 p.s.i. Exhaust pressure 20 p.s.i. Complete with gear reducer.
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1—Shartle 10 x 30 Single Plunger Pump.

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1—Sandusky 60" drilled face x 14" diameter.

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1—Wandy Thickener with anti friction bearing. Cylinder 48" diameter x 132" lon.

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1—Paper Converting Machine Co. Model 141 automatic 81" Perforator, slitter and Winder—with three motors—ball bearing.

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1—Nash 64.
1—Nash 63.
1—Nash 62.

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1—Valley Micrometer Unit for water finish on paper—120" double.

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1—24" Peterie complete from 1st off to single roll rewind section.
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1—84" Type 10.
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1—32" and 1—42" Type 40-2A.
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1—30" & 1—40" Langston Type A Shear Cut S & R.
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1—32" Hobbs Shear Cut, double rewind slitter and rewinder.

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10—Seybold, 44" 20th Century, 40", 50" & 56" 62; 50" 102; 34", 44", 45" & 54" Holyoke; 50" Dayton.
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S-28

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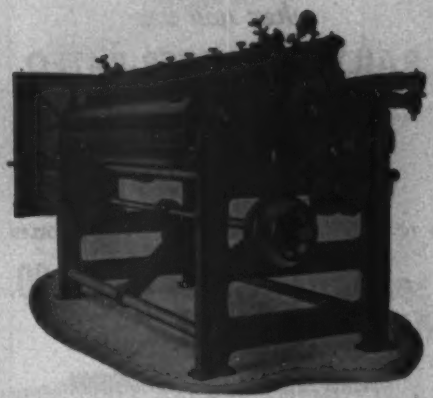

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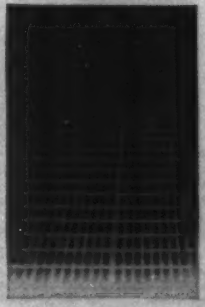

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Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
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Smith & Winchester Mfg. Co.

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Rohm & Haas Co.

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Combustion Engineering-Superheater, Inc.
Moore & White Co.
D. J. Murray Mfg. Co.
Pusey & Jones Corp.
Ross Engineering Corp., J. O.
Valley Iron Works Co.

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The Appleton Machine Co.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Dilts Machine Works (Kohler Systems)
Egan, Frank W., & Co.
Downingtown Mfg. Co.
Hudson-Sharp Mch. Co.
Moore & White Co.
Rice Barton Corporation
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.

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The Goodyear Tire & Rubber Company
Hercules Powder Co.
Monsanto Chemical Company
Naugatuck Chemical Division of U. S. Rubber Co.
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Rice Barton Corporation

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Glidden Company
Hercules Powder Co.
The Hubinger Co.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Stein-Hall Co., Inc.
Wyandotte Chemicals Corp., Michigan Alkali Div.

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Rohm & Haas Co.
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Rice Barton Corporation
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National Starch Products Inc.
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Rice Barton Corporation
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Babcock & Wilcox Co.
Combustion Engrg. Co., Inc.
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Stickle Steam Specialties Co.

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Carnegie Illinois Steel Co.
Lukens Steel Company
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U. S. Steel Corp.

**STEEL, CLAD**
Babcock & Wilcox Co.
Lukens Steel Company

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The Sandy Hill Iron & Brass Works

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Rice Barton Corporation
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Shartle Brothers Machine Co.

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Beloit Iron Works

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**SULPHUR**
Texas Gulf Sulphur Co.

**SULPHUR BURNERS**
Valley Iron Works Co.

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Ansul Chemical Co.
Virginia Smelting Co.

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B. F. Perkins & Son, Inc.

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B. F. Goodrich Chemical Co.
The Goodyear Tire & Rubber Company
Naugatuck Chemical Division of U. S. Rubber Co.
Nopco Chemical Co.

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Waldron Corp., John

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Thwing-Albert Instrument Co.
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Testing Machines, Inc.
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**TUBING MACHINES**
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Stickle Steam Specialties Co.
Valley Iron Works Co.
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**VATS**
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Rice Barton Corporation

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The Permutit Company
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Rohm & Haas Co., Resinous Products Div.

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Stickle Steam Specialties Co. — —
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Swenson Evaporator Co. Front Cover

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Taylor Stiles & Co. — —
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Thiele Kaolin Co. — —
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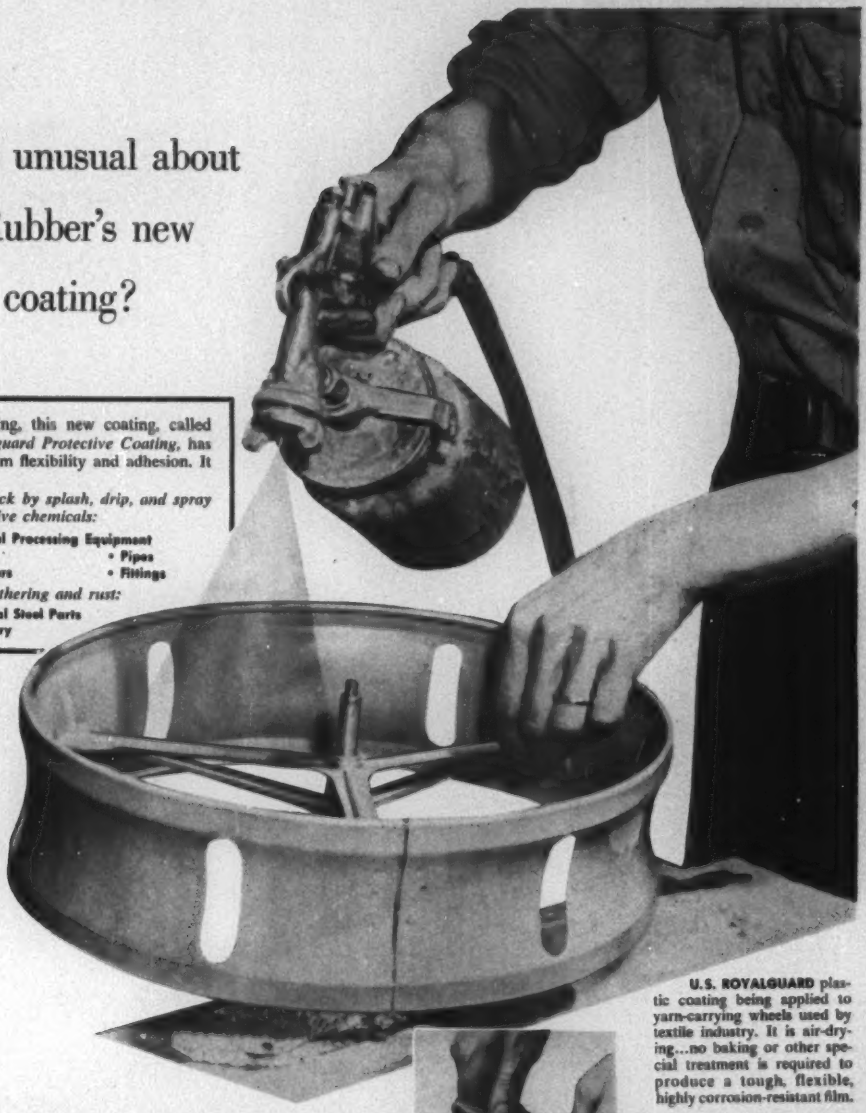

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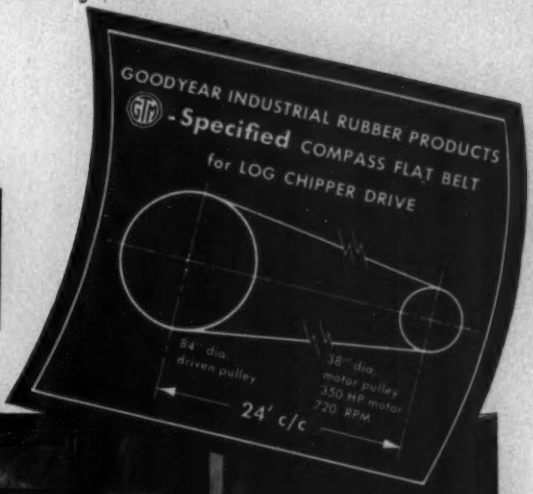

### Drive designed for 350 HP on Log Chipper Handles Peak Shock Loads of 1100 HP

THIS CHIPPER DRIVE was designed to handle 350 HP load—belted with a COMPASS 250 Steel Cable Transmission Belt when it was installed 4 years ago.

The customer reports frequent shock loads, caused by several large logs reaching the chipper together, boost the HP demand up to 1100 HP. Yet the Goodyear belt—specified by the G.T.M.—Goodyear Technical Man—has been handling this exacting drive for years without any visible effect on the belt!

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